Dr. Tony Nader

Foreword by David Lynch

Consciousness Is All There Is

How Understanding and Experiencing Consciousness Will Transform Your Life

ACCLAIM FOR

CONSCIOUSNESS IS ALL THERE IS

How Understanding and Experiencing Consciousness Will Transform Your Life

“Will open doors of perception for you”
“I am awed by Dr. Nader’s wisdom and inspired by his message. He grasps and explains the most profound concepts about existence. *Consciousness Is All There Is* will open doors of perception for you to a new and profound understanding of life.”

— **MARCI SHIMOFF**, co-author of the #1 *New York Times* bestseller *Chicken Soup for the Woman’s Soul* and author of *Happy for No Reason*

“Will put you on a path to something extraordinary”
“My career is focused on creating community. The operable part of that word is *unity*. Today, cultivating an orientation to belonging and unity is our most precious north star. In his book *Consciousness Is All There Is*, Dr. Tony Nader doesn’t just talk about unity, he describes with impeccable logic the reality that unity is the ultimate nature of life and that we are all headed there as we evolve. Read this book. It will put you on a path to something extraordinary.”

— **RADHA AGRAWAL**, co-founder and CEO of Daybreaker community and co-founder of THINX

“Page after page of the truth of how it all works”
“Does the brain create consciousness, as is the predominant thinking of today? No! No! No! It’s the opposite. Consciousness creates the brain!!! And it’s consciousness which creates everything in manifestation. This book by Dr. Tony Nader tells the story of ‘CONSCIOUSNESS ALONE IS.’ This book thrilled me to my core. Page after page of the truth of how it all works. Is this book a must-read? You better believe it is !!!”

— **DAVID LYNCH**, Academy Award–winning filmmaker and bestselling author of *Catching the Big Fish: Meditation, Consciousness, and Creativity*

“Has the potential to save the world”

“Through his understanding of modern science and ancient Vedic Science, Dr. Nader’s approach to consciousness has the potential to save the world from war and annihilation.”

— **MAYA SHAHANI**, Chairperson, The Shahani Group

“A must-read for anyone seeking inspiration and solutions”

“In *Consciousness Is All There Is*, Dr. Nader advances a powerful thesis of Consciousness — the singularity at the heart of nature and the most intimate fact of our existence. He analyzes the implications of this thesis for a sweeping range of hard problems in philosophy and science. And he invites the reader to verify these insights in terms of their own experience. A tour de force delivered with insight, compassion, and wit. A must-read for anyone seeking inspiration and solutions to solve the world’s greatest challenges.”

— **HON. W. SCOTT GOULD**, former deputy secretary, US Department of Veterans Affairs

“The deepest insights into the potential that life can hold”

“Our current trauma-focused therapies have been found wanting in addressing post-traumatic stress; the promotion of post-traumatic growth is the most promising way forward. Dr. Nader pulls together philosophy and quantum physics, good and evil, psychology and physiology in ways that make clear the understanding of humans as transcendent creatures who can identify themselves with the ultimate reality, far beyond guilt, shame, and irreconcilable inner conflicts. Socrates asserted that a truly happy person was just and harmonious on the inside, and Dr. Nader explores how any individual can align his or her self with universal truths and live in righteousness and health. Dr. Nader’s book holds the deepest insights into the potential that life can hold.”

— **COLONEL BRIAN REES, MD, MPH, USAR (ret.)**, author of *Heal Your Self, Heal Your World*

“Bringing simplicity to what most of us find complicated”

"*Consciousness Is All There Is* could not have come at a better time. Dr. Nader is brilliant in bringing simplicity to what most of us find complicated. This book will empower you to respond in a healthier way to whatever life circumstances you are facing. This book is a must-read for every member of the family."

— **DR. FABRIZIO MANCINI**, author of *The Power of Self-Healing*

"A clear, logical description of the ultimate structure of life"

"*Consciousness Is All There Is* dives deep into how we can make life work for everyone. Dr. Nader not only provides a clear, logical description of the ultimate structure of life, he provides the keys to resolve any problem you may be facing. In this time of turmoil and separation, this book is a lighthouse for anyone to find their way home."

— **JANET BRAY ATTWOOD**, *New York Times* bestselling coauthor of *The Passion Test*

"Deep understanding and experience of the development of consciousness and enlightenment"

"As the successor to Transcendental Meditation founder Maharishi Mahesh Yogi, Dr. Nader is uniquely qualified to elucidate the path to enlightenment as something real and natural, and he does so on the basis of neurophysiological refinement that utilizes the existing mechanics of human physiology. Enlightenment represents the full development of the most valuable qualities of human life. Dr. Nader combines the specialized training of a neuroscientist with his deep understanding and experience of the development of consciousness and enlightenment."

— **ROBERT KEITH WALLACE, PhD**, pioneering meditation researcher, co-author of *The Coherence Effect* and author of *The Neurophysiology of Enlightenment*

"Presents the breakthrough of the 21st century"

"As scientific discoveries have accelerated exponentially, a true understanding of consciousness has eluded scientific explanation and practical application. It took a scientist accomplished in the subjective approach of ancient Vedic Science and the objective approach of modern science to provide a comprehensive explanation of consciousness.

“Dr. Nader’s new book, *Consciousness Is All There Is*, integrates scientific understanding with a practical, personal, intimate experience in one coherent ‘theory of everything.’ His compelling investigation and exposition of the theory that ‘Consciousness is all there is’ satisfies both the passionate heart of the spiritual seeker and the discriminating intellect of the scientist.

“This book presents the breakthrough of the 21st century. Read it. Contemplate its wisdom. Dive within to experience its reality firsthand.”

— **NANCY LONSDORF, MD**, bestselling author of *The Healthy Brain Solution For Women Over Forty* and *The Ageless Woman*

“Profoundly stimulates our thinking”

“In our quest to understand the true reality of life as encapsulated by ideas, feelings, things, and actions, we keep returning to the fundamental question of consciousness itself. Dr. Nader takes us on a journey in which he explores not only our concepts and beliefs regarding consciousness but the very possibility of whether consciousness exists separately from any material origin. Asking these questions and exploring their implications profoundly stimulates our thinking as we explore our scientific, philosophical, and spiritual beliefs.”

— **GREGORY GRUENER, MD, MBA, MHPE, FANA**, vice dean for education, Stritch School of Medicine, Loyola University Chicago

“The mystery of ‘unreasonable effectiveness’ is solved in one logical stroke”

“Consciousness is one of the major scientific problems of our age. Mathematics is at the foundation of modern science and technology, and mathematics is a product of human consciousness. An enduring and much commented upon mystery is how this product of consciousness can have such ‘unreasonable effectiveness’ in describing the physical world. Solving this mystery is a vital scientific quest with significant practical consequences.

“Dr. Nader’s new book is a major contribution to this quest. Its elegant and well-argued position is, simply put, that Consciousness should be accepted as an a priori entity with matter as product. The mystery of ‘unreasonable effectiveness’ is solved in one logical stroke. Dr. Nader’s book will be enjoyed by all those interested in scientific and spiritual truth.”

— **PHILIP BOYLAND, PhD**, professor of mathematics, University of Florida

“A superb job in explaining the origin of matter in consciousness”

“This book creates a pathway to understanding one’s inner self. Dr. Tony Nader has done a superb job in explaining that the origin of matter is in consciousness. Through his extensive review and synthesis of ancient spiritual and modern scientific writings, he masterfully explains how consciousness is fundamental. He also demonstrates that greater knowledge of consciousness gives us the tools to create coherence in society and achieve personal happiness and world peace. This process blends ancient Vedic knowledge and modern science to create a better world.”

— **SATINDER SWAROOP, MD, FACP, FACC**, clinical professor, University of California Irvine School of Medicine, and past president of the Orange County Medical Association

“Holds the promise of enormous strides in our understanding of nature”

“Tony Nader’s new book is a major contribution toward solving the ‘hard problem’ of consciousness: understanding the nature of consciousness and its relationship to the physical. Having provided a model that presents consciousness as the most primordial field, Dr. Nader then shows how the model potentially solves enduring problems in various disciplines, including quantum field theory and the psychology of higher states of consciousness. The potential explanatory power of Dr. Nader’s monistic field theory of consciousness holds the promise of enormous strides in our understanding of nature.”

— **ALAN MADRY, JD, MA**, emeritus professor of law, Marquette University Law School

“The model of consciousness . . . in Dr. Nader’s groundbreaking book offers the only satisfactory explanation of the research data”

“Together with Dr. Frederick Travis, I have investigated world-class performers and compared them to average performers in sports, management, and classical music. We have measured moral reasoning, the frequency of peak experiences, and how coherent, restfully alert, and efficient the brain was — glimpses of higher consciousness. To explain our

findings and the fundamentals of high performance, we needed an underlying, all-pervasive field of consciousness. The model of consciousness so beautifully presented in Dr. Nader's groundbreaking book offers the only satisfactory explanation of the research data."

— **HARALD S. HARUNG, PhD**, Oslo Metropolitan University, co-author of *Excellence through Mind–Brain Development: The Secrets of World-Class Performers*

"Dr. Nader's monistic field theory of consciousness is a model for the 21st century"

"Research into brain and consciousness has stalled due to the explanatory gap: How does electrochemical activity in the brain generate conscious experience? Dr. Tony Nader outlines a new model of consciousness in his book *Consciousness Is All There Is*. He discusses the 'hard solution' — how a field of consciousness generates the physical world — and correlates his model to quantum field theories and mathematics. Dr. Nader's monistic field theory of consciousness is a model for the 21st century. It has the potential to guide brain and consciousness research for the next hundred years or longer."

— **FREDERICK TRAVIS, PhD**, professor and director of the Center for Brain, Consciousness, and Cognition, Maharishi International University, and author of *Your Brain Is a River, Not a Rock*

"A welcome and understandable explanation of the nature of consciousness"

"Modern concepts of consciousness and its origin are at best muddled. Scientists and philosophers have talked around the issue for years without a clear consensus. Dr. Tony Nader brings a fresh voice to this field and a welcome and understandable explanation of the nature of consciousness, from both a modern scientific and an ancient Vedic perspective. He presents the cogent argument that the unified field as defined by quantum field theory and the basis of human thought are in fact one and the same, a field of pure Being. He takes us step by step to an understanding that Consciousness is all that there is. This is a book for our time, and for the ages."

— **GARY P. KAPLAN, MD, PhD**, neurologist and educator, clinical associate professor of neurology (ret.), Zucker School of Medicine at

Hofstra University

“A discussion of consciousness so profound, written in such simple and engaging language”

“We see in the world today a hunger for knowledge of consciousness. Dr. Tony Nader’s new book, *Consciousness Is All There Is*, presents a discussion of consciousness so profound, written in such simple and engaging language, that it has the potential to inspire implementation of practical, transformative Consciousness-Based programs in education, health, rehabilitation, administration, the military — all areas of society.”

— **DAVID ORME-JOHNSON, PhD**, pioneering researcher on meditation and higher states of consciousness

“Opens a new world of possibilities for readers seeking inner peace, meaning, purpose, and mental and physical health”

“In *Consciousness Is All There Is*, Dr. Tony Nader expands the frontiers of holistic health. He goes beyond conventional mind-body medicine to explore the role of consciousness as the basis of our mind, body, and the environment. Dr. Nader’s new ‘Consciousness paradigm’ is based on the latest advances in quantum physics and neurophysiology, integrated with discoveries of ancient Vedic Science. This truly groundbreaking book opens a new world of possibilities for readers seeking inner peace, meaning, purpose, and mental and physical health. As an integrative physician scientist, I highly recommend *Consciousness Is All There Is* to everyone.”

— **ROBERT SCHNEIDER, MD, FACC**, director of the NIH-funded Institute for Prevention Research and dean of the College of Integrative Medicine at Maharishi International University

“Exploring the fundamental questions of existence”

“Dr. Nader is a unique example of East meets West—he is as adept at interpreting key phrases from the Upanishads as he is in explaining the relationship between classical physics and quantum mechanics. His discussion of the insights of great scientists such as Albert Einstein and Erwin Schrödinger is lucid and resonant. Most importantly, Dr. Nader’s book offers a practical path to translate the conclusions of his analysis into tangible benefits at the individual and societal levels. Anyone seriously

interested in exploring the fundamental questions of existence will not want to miss this book."

— **JOHN LASS, MBA**, president, Lass Advisory Services, LLC, formerly with Boston Consulting Group and Hagberg Consulting Group

"I've started to see my life in a new light"

"It's not often that a book can provoke me to think deeply and, as a result, change my life in a significant way. Dr. Nader's book, *Consciousness Is All There Is*, did just that. By combining insights from fields as diverse as cosmology, physics, psychology, religious studies, and philosophy, Dr. Nader managed to weave together explanations that provided answers to a lot of open questions about how the physical and the spiritual world could ever come together in one authoritative, scientific narrative. I've started to see my life in a new light and feel much calmer about facing the future."

— **ANDREAS STAVROPOULOS, MBA**, partner, Threshold Ventures

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Consciousness Is All There Is

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Also by Dr. Tony Nader

HUMAN PHYSIOLOGY

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Dr. Tony Nader

Consciousness Is All There Is

How Understanding and Experiencing Consciousness Will Transform Your Life

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This book is a thorough revision and expansion of Dr. Nader's earlier book, *One Unbounded Ocean of Consciousness: Simple Answers to the Big Questions in Life*, which was published as an e-book with ISBN 978-987-735-255-9.

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To Maharishi

The guiding light and inspiration, who revealed Consciousness as the ultimate reality and who offered to the world practical techniques to develop higher states of consciousness; and to all seekers of knowledge, teachers, scientists, philosophers, wise leaders, and guides who probe the secrets of nature's functioning and endeavor to improve life on Earth.

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CONTENTS

Foreword
Preface
Introduction: The Beginning

Part I – What Is Consciousness?

1. Why Consciousness Matters
2. Superficially Complex, Fundamentally Simple
3. The Emerging Science of Consciousness
4. What Is Consciousness?
5. Modern Science and the Physicalist Perspective

Part II – The Consciousness Paradigm

6. No-thing: The Start of Everything
7. Consciousness: One and Many
8. The Canvas of Manifestation
9. Speed Limits and Gaps in Manifestation
10. Time and the Eternal Now
11. Consciousness: The Field of All Possibilities
12. The Consciousness Pyramids: Unmanifest and Manifest
13. Perspectives in the Manifest
14. Fundamentals of the Consciousness Paradigm

Part III – Higher States of Consciousness

15. Transcendental Consciousness: Experiencing Pure Consciousness, the Self (Fourth State)

16. Cosmic Consciousness: Experiencing Permanent Unbounded Awareness (Fifth State)

17. God Consciousness: Experiencing Nature's Celestial Essence (Sixth State)

18. Unity Consciousness: All Experience in Terms of the Self (Seventh State)

Part IV – Technologies of Consciousness

19. Techniques for Transcending: Experiencing Pure Consciousnes

20. Coherence in Collective Consciousness: The Pathway to Peace

Part V – Implications for Human Flourishing

21. Do We Have Free Will? How Do We Expand Our Freedom?

22. What Is a Well-Lived Life?

23. How Can We Spontaneously Do the Right Thing?

24. What About the Problem of Evil?

25. How Can We Address the Challenges We Face?

Conclusion: A Final Note

Appendices

A: Veda and the Vedic Literature in Human Physiology

B: The Consciousness Paradigm and the Philosophy of Mind: A Personal Note

C: Technical Note on the Relativity of Simultaneity

Glossary

Notes

Index

About the Author
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FOREWORD

by David Lynch

In this milestone book, Dr. Tony Nader offers ideas that can change the world. He gives profound solutions to questions that have long fascinated and intrigued philosophers and scientists alike, covering topics as diverse as the purpose of life, good and evil, and the nature of consciousness. Do we have free will? Is there order or chaos in the universe? How do we create the best life for ourselves, fulfill our desires, and create peace and harmony among peoples and nations? He offers answers based on a simple underlying paradigm that unifies mind, body, and the environment in one ocean of pure Being, pure Consciousness. A must-read for any seeker of answers to the mysteries of life and for all seekers of absolute, ultimate truth.

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PREFACE

Throughout the history of human knowledge, one question echoes most persistently: What is the key to a welllived, flourishing life in which we all can coexist in peace? This quest has led down countless paths, all of which return to their starting point, the human being, the seeker of knowledge, and ultimately to the investigation of consciousness itself.

Consciousness is that enigmatic force that dwells within each of us, the canvas upon which all our thoughts and emotions dance. It is both the question and the answer, the riddle and the revelation.

Because consciousness is so intimate to each of us, a journey into its depths is a journey into ourselves. As we explore the vast territory of the mind, we begin to grasp the extraordinary power that consciousness wields over our lives. I invite you to join me as we venture into the heart of this grand enigma — the truth of which, as we shall see, is more a wonder than a mystery.

If you have ever intuited that beneath the surface of your awareness lies a field of limitless potential, a wellspring of happiness, creativity, and intelligence, then the framework I present within these pages will not only validate your intuition but show you how to nurture and develop that immense potential.

On the other hand, if you regard consciousness as merely a byproduct of the brain's electrochemical activity and believe that the universe is composed of nothing more than physical matter, then the logic and evidence you will encounter here may broaden your perspective, or even change your mind.

Many of us reach pivotal moments in our lives when we experience a personal paradigm shift. We gain a deeper understanding of something that profoundly matters to us, and we realize that what we once believed to be true was merely a fragment of some larger reality, or was not true at all. Life has a remarkable way of shedding light on misconceptions and revealing new truths.

When such shifts occur collectively and across entire fields of knowledge, they are often hailed as scientific revolutions. New discoveries can expand existing boundaries and reshape our understanding. Such breakthroughs often yield new technologies, practical applications born of a deeper comprehension of how nature works.

The paradigm shift proposed in *Consciousness Is All There Is* represents a monumental transformation in our collective understanding of consciousness. This model shows consciousness to be a dynamic, intelligent field of such magnitude that the techniques for harnessing its power promise to be our most transformative and life-enhancing technologies.

In this fresh paradigm, consciousness assumes its rightful place as primary and fundamental, the essence of all existence. While this statement may seem abstract or philosophical, the practical applications of this approach are objectively verifiable. A substantial body of scientific research has already demonstrated remarkable benefits from the technologies of consciousness that I will describe.

In a world where experts caution against surrendering too much power to artificial intelligence, it is timely that this theory delivers a source of far greater empowerment: advanced human intelligence gained through the development of consciousness.

A higher state of well-being

The influential American psychologist Abraham Maslow introduced the idea of a *hierarchy of needs*, a framework for understanding health and well-being. According to Maslow, the journey toward wellness begins by satisfying our basic needs: nourishment, hydration, rest, shelter, and the like. Once these needs are met, we find ourselves better able to pursue higher aspirations, such as career goals, meaningful friendships, and a sense of belonging in society.

As we ascend this hierarchy, we are on a path of personal growth. Maslow's model initially culminated in *self-actualization* — the realization of individual potential. In later years, Maslow expanded his framework to encompass what he regarded as the pinnacle of human experience: *transcendence*, the development of higher consciousness.

In this broader perspective, well-being extends beyond physical vitality and feeling good about our ourselves; true wellness is a state of profound

clarity, peace, and contentment. This state of heightened well-being need not be left to chance, nor does it depend on fulfilling basic needs first: this is the promise of the Consciousness paradigm.*

Higher well-being results from connecting with our authentic inner nature, pure Consciousness. Through the technologies designed for directly experiencing this transcendental field, life becomes a journey of increasing inner fulfillment — a process of awakening that touches the core of our being. To use Maslow's term, life in this state might be described as a continuous *peak experience*.

As clinical research shows, making this deeper inner connection improves health and develops mental potential, which enhances our ability to fulfill both basic and higher needs. Thus, while transcendence leads to peak experience and higher consciousness, it is also key to maximizing success in all areas of life, inner and outer.

Until recent times, the technique that allows the mind to go beyond thought and transcend had not been readily available to society, and thus experiences of higher states of consciousness were more uncommon.

As we proceed in this exploration, we will delve into these higher states and offer insights into how anyone can develop them.

A personal and scientific awakening

Quantum physics has revealed that deeper levels of reality are made not of physical building blocks but of energy fields. This knowledge places humankind at the threshold of discovering the primordial substance, the most basic element in the universe. The Consciousness paradigm recognizes that the one fundamental field of which all things are made, including us, is Consciousness itself. Ultimately, Consciousness is all there is.

The recognition and acceptance of this theory of consciousness will constitute a revolution in scientific knowledge. Yet this shift in worldview is not restricted to scientists. This revolution in knowledge is open to everyone. I am calling for a scientific revolution but also for a *personal* one: an awakening to the greater reality of what it means to be human. The Consciousness paradigm is as much a personal empowerment as it is an intellectual transformation.

Our consciousness is a field of far greater potentiality than most of us would ever have imagined. But I am not advocating merely a change in

belief or in how we feel about life. This model of consciousness is not just speculative or theoretical. It is based on three levels of empirical* verification, which not only meet the standards of conventional science but also raise them:

- Direct experience available to everyone.
- Scientific research (e.g., peer-reviewed studies showing effects on brain activity, stress levels, heart health, and overall well-being).
- Historical records describing experiences of higher states of consciousness.

Taking a more holistic view of mind and nature, this Consciousness paradigm wields tremendous explanatory power. It resolves the philosophical quandary long known as *the mind–body problem* and turns the famous *hard problem of consciousness* on its head, rendering it a nonissue.

More important, this perspective has far-reaching implications for how we live, view ourselves and others, and understand our place in the universe.

In search of meaning

We all hold fundamental beliefs that underlie our worldview and influence everything we do. Consciously or not, these beliefs shape our lives and forge our thinking, feeling, and behavior.

Many of our beliefs pertain to universal questions: Is there a hidden purpose to life, a secret design? Are we each on our own individual path, or are we part of a larger evolutionary process? Where do we come from and where do we go when we leave? Do we possess free will or are we slaves to destiny? Are we governed by some force or laws of nature, or God, or are we tossed about in a chaotic universe? Is there one supreme universal truth?

I have devoted my life to searching for answers to such questions, delving into religious texts and schools of philosophy. As I discovered so many diverse viewpoints, it sometimes seemed that people were living in their own separate universes. I turned to the study of medicine, psychiatry, and neurology to understand how, being so similar, we can differ so widely

in our points of view. How does the human nervous system produce the mind with its vagaries that lead us in so many directions, motivating some people to fight and even kill for the sake of ideas or in service to their God?

One thing is certain: If we were not conscious beings, none of this would matter. We would be acting and reacting instinctively, automatically, robotically. Without consciousness, there would be no questioning, no choice, no freedom, no responsibility. There would be no dreams, feelings, or hopes, no desire, disappointment, or joy.

Consciousness is the indispensable foundation that upholds all our knowledge and experience. Because consciousness is fundamental, a comprehensive theory of consciousness brings new light to some of our most daunting concerns, including the big questions about life.

As we dive into the Consciousness paradigm, we will find that it unifies diverse ideas and resolves questions about both the physical world and the nonphysical world of thought, perception, and awareness.

Differences and divisions in the world often generate conflict and violence. The unifying paradigm shows us how, amid all our differences, we can peacefully coexist and live in harmony with our environment.

The “inner” world of consciousness, once the domain of philosophy and psychology, today attracts neuroscientists and physicists. This exploration of consciousness will thus take you to the very frontiers of human knowledge.

Ancient wisdom meets modern science

The idea that Consciousness is the essence of all that exists is not new. Neither is the timeless source of this vision: the experience that Consciousness is primary. In every human era and every culture around the globe, we find descriptions of this exalted experience.

Perhaps its most thorough and systematic expression is the philosophy of Advaita Vedanta from India’s Vedic tradition. Accounts of the experience are also found in the Kabbalah, Sufism, the writings of many Christian mystics, and the classical texts of Christianity. Though the understanding of how to directly access this deepest level of awareness can get lost over the long lapse of time, the experience is central to the original teachings of Taoism, Buddhism, Judaism, Islam, and many other spiritual traditions. The

fact that Consciousness has been described throughout time as a singular, unified field lends further credence to the Consciousness paradigm.

Our ability to be conscious is the most important aspect of our lives. Discovering, exploring, and developing consciousness is the greatest adventure of our scientific age, or any age. May this journey lead you to the inner peace, clarity, power, and higher well-being that come from understanding and unfolding the total potential of your own consciousness.

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* Throughout this journey, I will use a capital *C* when referring to Consciousness as the singularity that encompasses all, and a lowercase *c* when discussing individual or localized consciousness and the property of consciousness.

* While the term *empirical* in science typically refers to data based on observation of objects regarded as separate from the observer, repeated and consistent subjective or mental experiences can also be considered empirical and reliable.

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INTRODUCTION:
The Beginning

“The purpose of life is the expansion of happiness,” he said. “Life is bliss and suffering is not necessary.” The civil war raging around me, the suffering I met in the emergency room, the people fighting or even killing each other for ideas or beliefs — it all spoke against what he was saying. Yet through the television screen he radiated something genuine and credible. His demeanor and speech were inspiring. I felt drawn to watch and listen more.

Innately, no one desires to suffer. At every level of wealth and education, in every culture and tradition, and across all races, genders, and beliefs, people have wanted more happiness and love, more security, more pleasing sounds to hear, more money and empowerment, more beauty and charm. But whatever their achievements, most people end up not fully content with what they have.

Is it a natural force of evolution that pushes us toward wanting more and more? Our discriminating intellect can certainly take us toward higher values, toward the spiritual or the divine. We can surpass our basic instincts and strive to rise above pain and suffering and even embrace sacrifice for a higher good. But we certainly prefer that suffering be avoided.

In the first year of my premedical studies at American University in Beirut, a terrible and devastating civil war broke out between Muslims and Christians. Various ideological, political, racial, and economic underpinnings were at play. It lasted fifteen years with an estimated 120,000 fatalities and untold suffering in a small country of fewer than four million. I had decided to study medicine to alleviate suffering, and also to uncover through science the secrets of how mind and body guide our behavior.

“Life is bliss” was far from being my understanding and experience.

Unperturbed peace, unconditional love and compassion, unfailing fairness, unfaltering perfection — all seemed to be ideals that did not

belong to the human lot. Are those ideals only reserved for the afterlife in some heavenly sphere?

We hear of rare individuals who, perhaps after great trials and tribulations, have had fleeting moments or a glimpse of wholeness and bliss. Some of them, after experiencing a spiritual rapture, spend the rest of their lives as recluses seeking to regain the experience or attain divine communion. We read of others who go on to become saints within one of the various religions or belief systems.

And here was someone on a television show almost normalizing the spiritual achievements I had dreamed of but felt were never within my reach. He was saying not only that everyone can experience and live these ideals, but that it was easy, natural, and everyone's birthright. A reclusive life was not necessary. I did not have to abandon or change my beliefs. I could still pursue my passion for knowledge, science, and medicine in my desire to live a worthy life and make a difference where I could. No sacrifice, no suffering, no pain was necessary.

Maharishi Mahesh Yogi, the speaker whom I saw on television, was an Indian physicist who had become a Himalayan monk under the tutelage of Shankaracharya Brahmananda Saraswati, the most revered representative and highest authority on Veda and the Vedic tradition, the ancient knowledge from where yoga, meditation, Ayurveda, and many other disciplines come. Maharishi spoke about his teacher with great devotion and respect, calling him "Guru Dev," which means "divine teacher." The more I watched Maharishi, the more I felt intrigued. He spoke about consciousness in ways I had never heard before: deep inner consciousness, pure Consciousness, and higher states.

"Pure Consciousness," he said, "is an infinite reservoir of creativity and intelligence, the ultimate, unified level of Being, which is the true self of everything and everyone."

What I knew about consciousness was its three major states — sleeping, dreaming, and waking — as well as the altered states that people experience as a result of drugs, injury, or disease. Maharishi was certainly not talking about drug-induced hallucinations, self-suggestion, or a hypnotic trance. He described his method of experiencing and living pure Consciousness as a natural, simple, do-it-yourself mental technique that settles all activity of the mind, giving very deep rest while one remains awake and alert. He said that you transcend all activity of the mind and go deep within your inner

self. This is where you experience peace, happiness, and freedom from limitations.

In various talks I heard later, successful leaders in many fields gave testimonials about their experiences of transcending and its positive effects on mind and body. Several world-famous celebrities described how it had benefited them.

Consciousness is surely central to our lives, since all that we plan, think, feel, and experience happens within our consciousness. However, I never imagined that without any medicines or drugs, consciousness could be enlivened or transformed or that the development of consciousness itself could improve mind, body, and behavior. What was the nature of consciousness, and how could experiencing something called *pure Consciousness* lead to such results? How was it possible to be conscious without any thoughts?

Around that time, Robert Keith Wallace, a doctoral student at the University of California, Los Angeles, described in his peer-reviewed, published research and in his PhD thesis a fourth major state of consciousness. This fourth state is characterized by physiological, electroencephalographic, and psychological changes different from those of waking, dreaming, or sleeping. Wallace described it as a "wakeful hypometabolic state," or "restful alertness." He and others found that this experience of deep rest combined with increased alertness, gained during the practice of Maharishi's Transcendental Meditation® (TM®) technique, had measurable long-term benefits. Some of those effects included the slowing of biological aging, reduced hospital admissions, normalization of blood pressure, decreased anxiety, and a marked reduction in mental and physical stress, with improved overall health outcomes.

A few months before my television encounter with Maharishi, I read an article describing a discovery in 1968 by physicists Weinberg, Glashow, and Salam, of a level of nature where forces such as electricity, magnetism, and the force responsible for radioactive decay are unified at their basis. The article stated that physicists now suggest that everything we observe on the surface level of manifestation seems to come from one unified field. All objects, minerals, organic life, trees, animals, and humans are ultimately made from one unified field of all the laws of nature. Weinberg, Glashow, and Salam subsequently won the 1979 Nobel Prize for their discovery.

John Hagelin, a Harvardtrained PhD in physics and former researcher at the European Council for Nuclear Research (CERN) — home of the world's most powerful particle accelerator — had begun working closely with Maharishi on the possible connection between pure Consciousness and the unified field. Hagelin later devoted his career to the exploration of a fully unified theory of nature and the extent to which the unified field corresponds, from a physics viewpoint, to pure Consciousness.

He identified striking qualitative parallels between the two. Both the unified field and pure Consciousness are single, underlying fields. Both are unbounded, beyond space and time. Both are infinitely dynamic. Both are fields of pure intelligence. And both create diversity within themselves through a process of self-interaction or self-referral.

There was already serious research about the benefits of Transcendental Meditation, and I could see potentially plausible comparisons from the physics perspective between pure Consciousness and the unified source of all matter. I decided to try Maharishi's Transcendental Meditation, thinking I had nothing to lose except a few dollars and twenty minutes twice a day for a few days in case it didn't work for me. After all, as Maharishi had said, laughing, "The proof of the pudding is in the eating!"

During my first meditation, I experienced my mind settling down to a place I had never imagined possible. No thoughts, no images, no fear, no boundaries, no concerns — just pure Being, pure deep inner silence and peace, but with expanded wakefulness. It was a quiet, unbounded awakening. My mind transcended all sensory and mental experience to an absolute state of nonchange. Though it was an abstract state of pure existence, it felt as real and palpable as any sensory experience. As I floated in this serenity, everything vanished, yet nothing was lacking. My instructor described this ancient technique as the supreme yoga of the mind. He could not hide his delight in hearing about my experience.

"What you experienced was pure Consciousness," he said, "your true Self, with a big *S*, and that Self is the Self of everyone and everything."

He laughed. "Now you know what they meant when they said *Know thyself!*"

It was such an unexpected experience that I wondered how many others may have had it and whether I would ever have it again.

As my practice continued, depending on the day and circumstances, the subjective experience was different, but with every twenty-minute session

of transcending, more and more stability and happiness grew in my life.

Millions of people had tried it. Meditators I encountered had experiences similar to mine, depending on their individual stress level and regularity of practice. It was not really the depth of experience in meditation that counted most but the benefits in daily life.

Fast-forward twenty-five years. I had completed my medical and scientific training at Harvard and the Massachusetts Institute of Technology and had spent precious time learning about consciousness under Maharishi's guidance. I had explored the similarities between modern objective scientific findings and the ancient subjective expressions of knowledge available in the Vedic literature. I found myself sitting with Maharishi when he asked me to take on the most unexpected responsibility. "You will represent me and Guru Dev and the Vedic tradition, to ensure that the teaching continues in its purity, now and in the future, and is made widely available everywhere for the benefit of all."

I felt overwhelmed and speechless. At first, I assumed his offer was a way of thanking me for my research and the work I had done with him. I told him I was honored to keep contributing however I could, and that I didn't need any title or position. He made it clear this was no small matter for him and that he wished me to formally assume a leadership role. There was no need to utter a response, no question whether to accept. I said *yes* without saying it.

Over the years that I continued to work with Maharishi, he taught me to be simple, keep my mind open, and learn to see with my heart as well as with my eyes. I learned that the biggest questions often have simple answers.

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PART I

What Is Consciousness?

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CHAPTER 1

WHY CONSCIOUSNESS MATTERS

What is consciousness? This question has fascinated philosophers since ancient times. But what does the word *consciousness* mean, precisely?

Consciousness refers to awareness and wakefulness, such as being aware of your thoughts, feelings, and identity, and of things in your environment.

Consciousness is often regarded as nonphysical. But if there are two realities in our universe — one nonphysical (consciousness, mind, or spirit) and one physical (matter and energy) — how are they related? How do they talk to each other? How do the physical and nonphysical interact?

Those who believe that matter is the fundamental ingredient of the universe are known as *physicalists*. They assume that consciousness is a product of the physical. For them, consciousness is an emergent property resulting from the organization of subatomic particles, atoms, molecules, cells, and so on, into a nervous system and brain that somehow become conscious and experience qualities of consciousness, including perceptions, thoughts, and feelings.

But physicalists cannot explain *how* the physical creates consciousness.

The origin of consciousness: reversing the problem

If matter and the physical are all that there is and are the source of consciousness, then what is matter? From where does it emerge?

We know that matter is energy and that there are different manifestations of energy, such as electricity, magnetism, and gravity. However, scientists have discovered that the energy and force fields, which appear different, are unified at their basis.

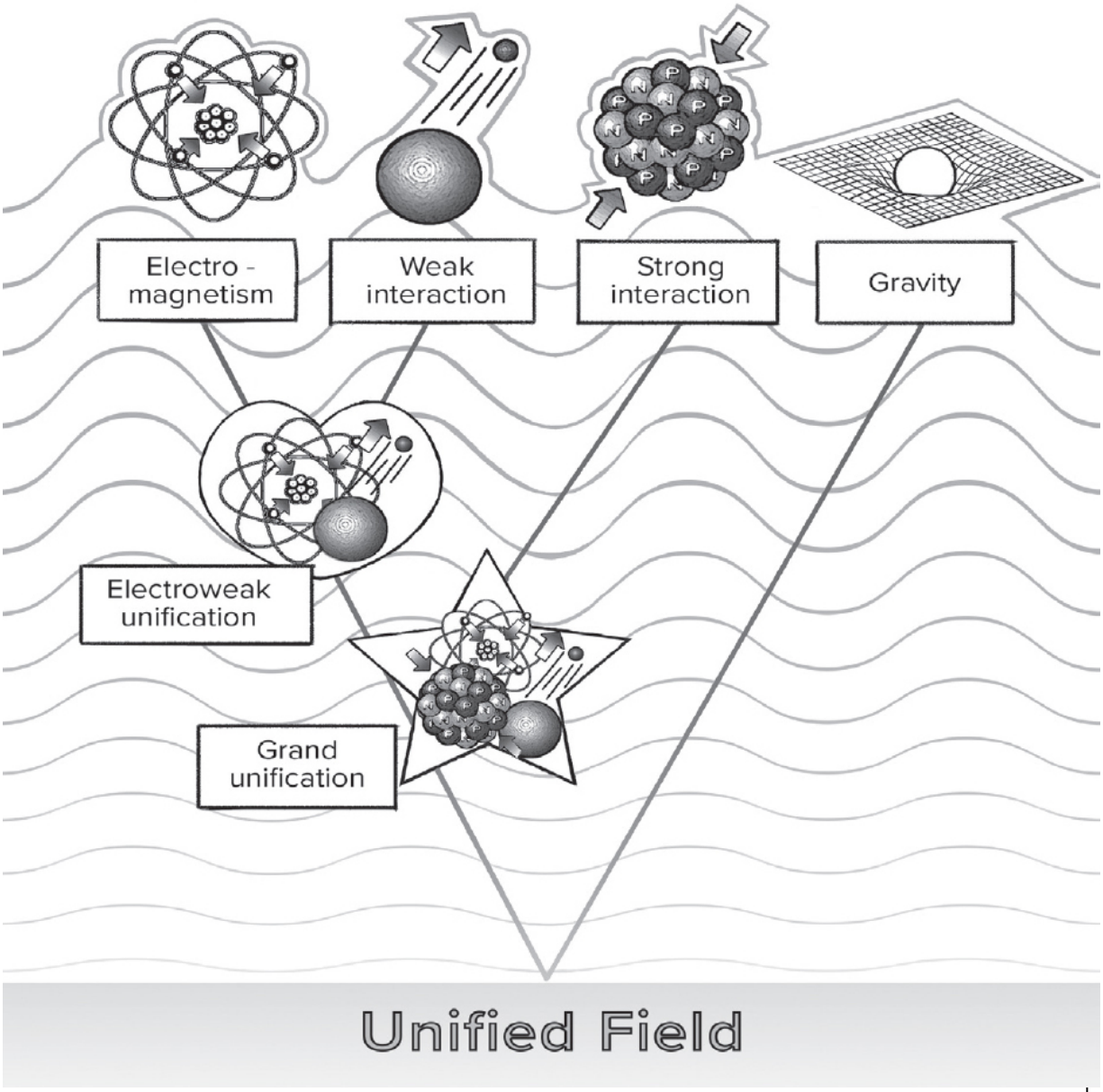
Electricity and magnetism, for example, are manifestations of one field: the electromagnetic field. Most physicists now assume that all these energy and force fields emerge from one underlying unified field. Physics research into

the smallest particles or constituents of matter has revealed that the quantum level has randomness, uncertainty, and nonlocality. The ultimate constituents of matter are not localized in time and space. On the tiny quantum scales, the classical concepts of matter, energy, time, and space do not hold. The source of matter is thus nonmaterial.

The ancient knowledge available in Veda, particularly in Vedanta as brought to light by Maharishi, describes the source of all the physical and material as a field of Consciousness. Many philosophers, thinkers, and scientists from ancient times to the present postulated similar concepts.

During my work with Maharishi, and based on theoretical as well as practical, applied research findings, I became convinced that Consciousness is the basis not only of the mental and spiritual aspects of life but also of matter and energy. I am suggesting that we reverse the enigmatic problem about how matter creates consciousness and state that it is Consciousness that creates matter. More precisely, Consciousness *appears* as matter.

Unifying the fundamental forces of nature



Probing deeply into the structure of the physical world, physics has discovered four fundamental forces governing all interactions of matter. The deeper we go into nature, the more energy and unity we find.

The discovery of electroweak unification unified the electromagnetic and weak nuclear forces into a single electroweak force. Grand unification recognized the electroweak and strong nuclear forces as permutations of a single force field. Gravity remains to be unified in what will be known as superunification, leading to a better understanding of the unified field.

The Consciousness paradigm identifies the unified field as a field of pure Consciousness.

I propose this radical idea: *Consciousness is all there is.**

Now the question becomes: How does Consciousness create or appear as matter? Which leads to further questions: What does this imply for philosophy and science? Does it affect personal belief, ethics, and well-being?

Answering these questions and many others might seem ambitious, but they have simple answers in the worldview I present here.

Let's start with the grand proposal: There is one unified field of Consciousness that is completely nonphysical and nonmaterial. It is beyond time and space and therefore has no beginning or end. Beginnings and endings mean something in the physical world but have no meaning outside of it. Consciousness is not a thing. It is nothing material. Yet it is everything.

Consciousness is all there is

The orthodox view among most philosophers and my fellow neuroscientists is that consciousness, as a subjective, mental phenomenon, must originate from a physical source. Our minds and everything that happens "within" them (including thoughts, feelings, and perceptions) must be solely the product of electrical, biochemical, and quantum-mechanical activity in the brain and nervous system.

In this view, our subjectivity — the inner world we all know and cherish, including memories, understandings, enjoyment of music and beauty — is entirely due to these electrochemical reactions and ongoing modifications in the brain. We have thoughts and feelings or we experience perceptions when faint impulses course silently through the visual cortex or stimulate the limbic system. This way of thinking is so deeply etched in the collective materialist worldview that scientists rarely question it.

This worldview appears to be accurate for many reasons. But I am proposing that it is not. Consciousness is not a product of a nervous system, a brain, a body, or anything. It is the fundamental reality.

As a neuroscientist, I would be the last one to deny all the ways that physiological processes color our inner theater of subjective awareness. Abundant evidence makes it appear as if consciousness is a product of physiology. But we interpret that evidence according to what "glasses" we wear — the model of the universe through which we view everything. That worldview insists that the material or physical is real and that consciousness is somehow not real.

What makes us so sure?

The physicalists have believed this theory of materialism for three hundred years. It has become the accepted scientific paradigm, a framework for understanding all our thoughts and perceptions. The scientific method itself has certainly been a useful approach. It has catalyzed great human achievement because it is systematic and reliable. But it is important to differentiate between the scientific method and the theories and assumptions certain scientists make.

The materialistic worldview is only a model. The assumption that everything comes from some physical energy or matter is not truly scientific. It is an unproven belief system. As we shall see, it also faces serious challenges within science itself.

Subjective mental phenomena have so far been impossible to adequately explain from a physicalist perspective. Science is also baffled by unexpected findings on the physical level, forcing scientists to rethink many of their assumptions. For example:

- Atomic quanta[*] (such as photons and electrons) can be in many places at the same time until they are observed, and they can behave as either particles or waves.
- Particle pairs *entangle* with each other so that a measurement in the spin[**] of one particle sparks an opposite shift in the other — instantaneously, anywhere in the universe. How does each particle know what is happening to the other when the two are so far apart?
- An unidentified and mysterious force known as dark energy is propelling the expansion of the universe. Then there is the equally unknown dark matter that we know only from its gravitational effect on known matter. Between the two, dark energy and dark matter constitute about 96 percent of the universe.
- The faster you go in space, the more slowly you age; objects diminish in length, and clocks slow down. At velocities approaching the speed of light, clocks will eventually stop.

Regarding the strangeness of the universe that science does not yet comprehend, these unexpected findings are the tip of the iceberg. Such

discoveries in the past century in physics — including quantum mechanics and quantum fields, relativity, and the equivalence of energy and matter ($E=mc^2$) — clearly showed a different picture of the underlying reality from what was previously assumed.

We now know, for example, that the entire material world arises not from solid, localized atoms and particles but from underlying, nonmaterial energy fields. As previously mentioned, at more fundamental scales, energy and force fields are progressively more unified, and physicists have posited a single unified field at the basis of all there is. Most scientists, however, still assume that the ultimate unified field is a field of physical energy.

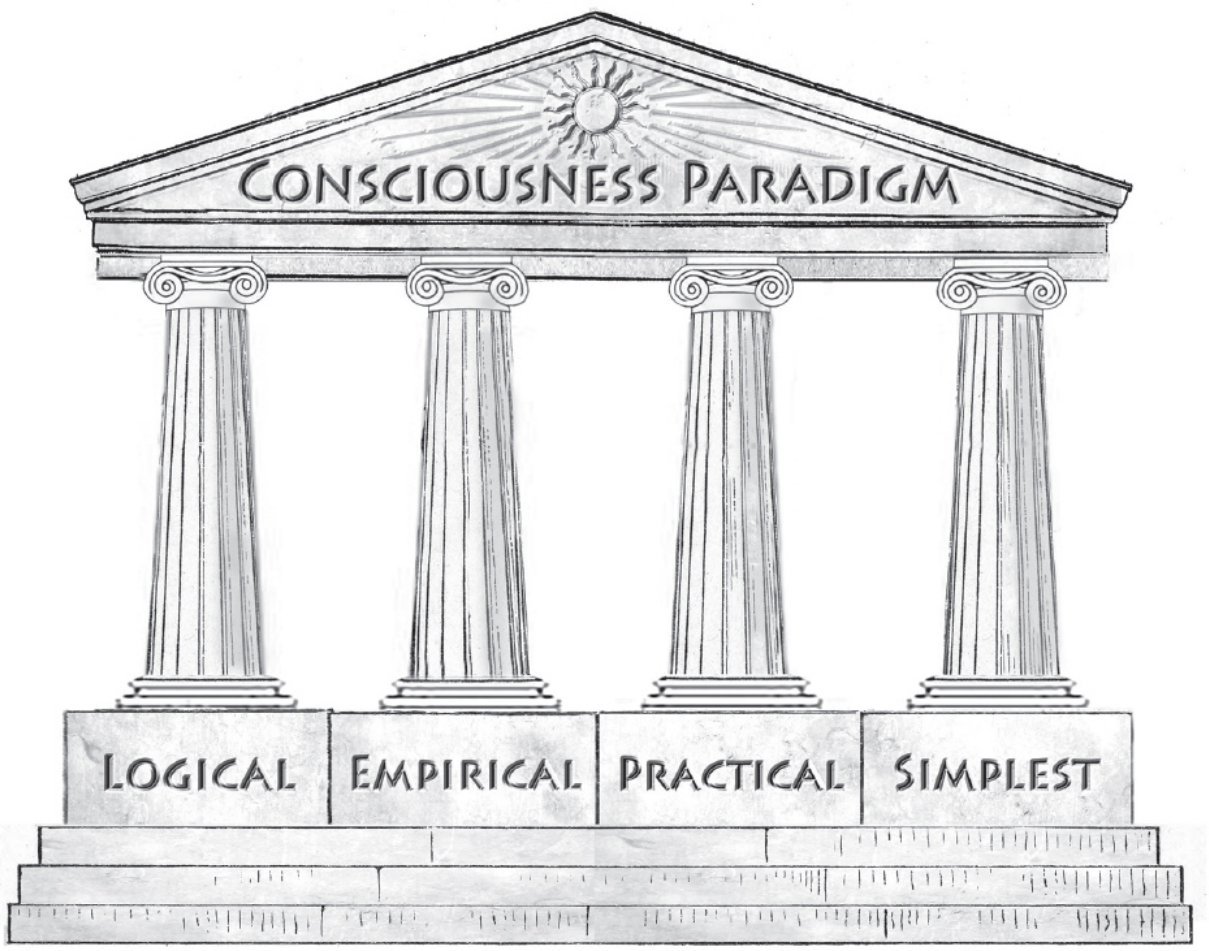
In the Consciousness paradigm, the unified field is the field of Consciousness. All that exists, all physical energy and matter, are manifestations of this field.

The theory of Consciousness presented here is not a philosophical or spiritual belief system. It offers a rationale with accompanying empirical evidence on how the singularity of Consciousness, a nonmaterial and nonphysical entity, could give rise to the universe with its endless objects and phenomena. While there may be good reason to be critical about the unproven assumptions among some scientists regarding the nature of reality, I will nonetheless use the scientific approach in my analysis to help establish fact.

The science of this investigation stands on four main pillars:

- **Reason** – a cogent theory based on logical, rational analysis of observations and data, without reliance on supernatural factors that are considered unfathomable or unintelligible. A theory should not contradict established facts.
- **Empirical findings** – reliable data established through peer-reviewed research and consistent subjective mental experiences that are systematically documented.
- **Practical applications** – a theory should broaden understanding, expand knowledge, prompt new discoveries, and enhance our practical ability to utilize the laws of nature for individual and societal well-being.
- **Simplest explanation** – the problem-solving principle known as *Occam's razor* recommends searching for the simplest of all possible explanations. A problem may have many solutions, but if the most logical is also the simplest, it often turns out to be the best.

The four pillars of the Consciousness paradigm



The Consciousness paradigm, like any solid and useful scientific theory, stands on these four pillars: A theory must be logical or based on reason, it must rely on empirical data, it must yield practical and testable applications, and it must offer the simplest explanation.

Any comprehensive and fruitful investigation of consciousness, as part of its set of empirical data, must necessarily include consistent subjective experiences, such as reliable and repeatable experiences gained during meditation.

To expand our perspective beyond the current model is to question one of the foundational assumptions in science: the materialistic notion that everything comes from an energy that is purely physical. This is the idée fixe that colors the thinking of most people in our world and is commonly taken as absolute truth.

Throughout history, preconceptions and biases have blocked the way to greater knowledge. Scientific breakthroughs have always upended entrenched paradigms and led to a deeper understanding. Why not revise this unproven but staunchly held belief that the physical is the source of everything?

Metaphors

In addition to these four pillars of analysis, I will occasionally use metaphors and illustrations to make abstract concepts more concrete. Through imagination, metaphors can clarify what the intellect may not immediately grasp, helping us overcome preconceived ideas by opening new, often intuitive perspectives.

However, please bear in mind that metaphors and illustrations do not by themselves prove anything. They are analogies. While useful, they have their limitations. Not all details of a metaphor will correspond to the concepts being illustrated. For example, in this book I sometimes describe the unified field as *one unbounded ocean of Consciousness.* Consciousness is obviously not an ocean made of water. It is nonmaterial. While comparing Consciousness to an ocean does not prove anything, it helps us conceive of Consciousness as vast and limitless, dynamically in motion within itself yet maintaining its status as immovable and complete.

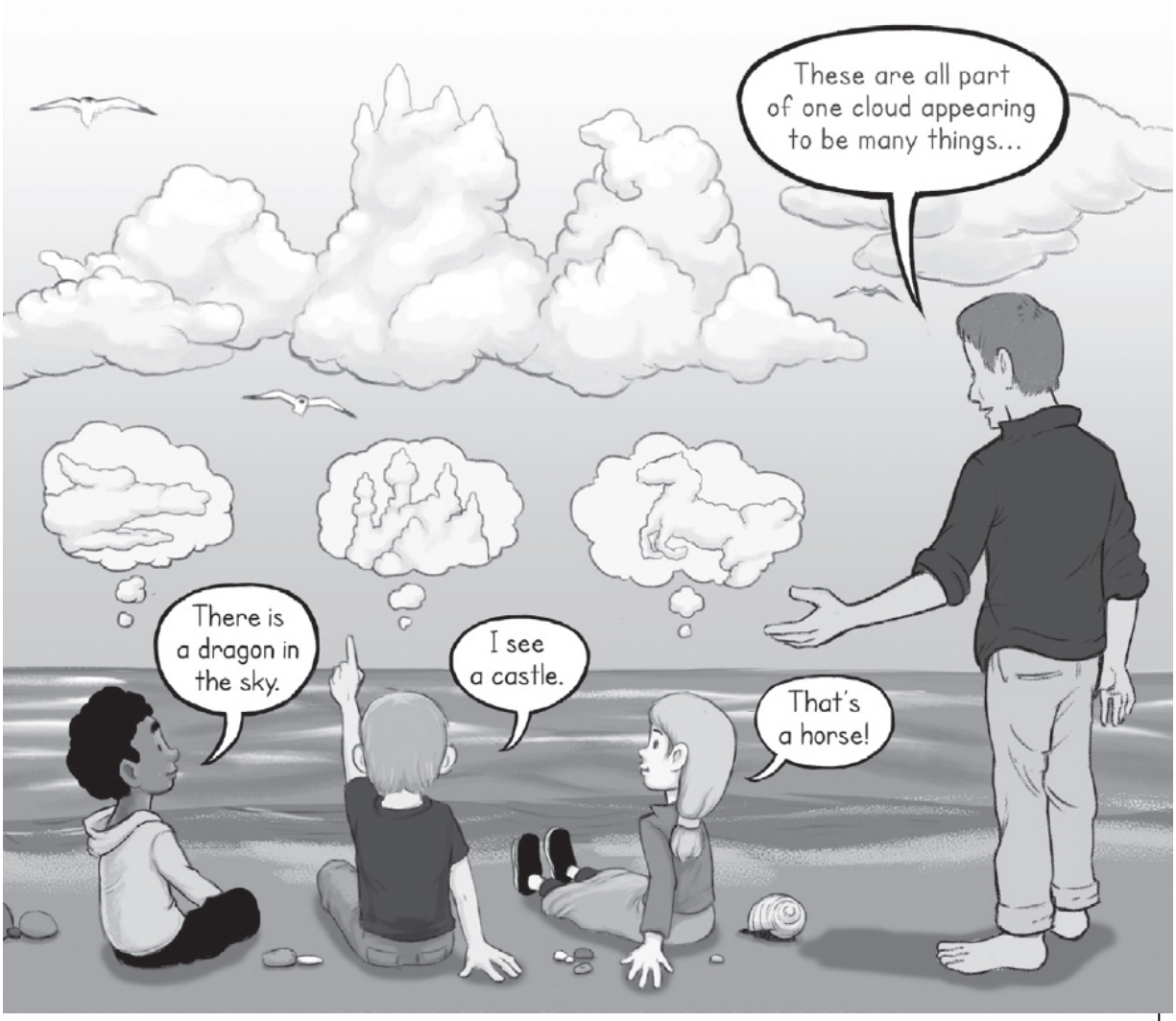
We can take this metaphor further. Imagine there is an ocean that has always existed and always will. It is unbounded in space — present here, there, and everywhere. Imagine this ocean having endless waves, some on the surface, others hidden within the ocean’s vastness. Some waves rise and fall, come together, break apart, and move in all directions to create endless currents.

Some of the ocean’s water evaporates, leading to clouds of all sizes and shapes. Children admire the clouds, seeing one that looks like an angel, another like a horse, a tree, a laughing woman, an endless number of beings and creatures appearing out of thin air. As evaporated water, the clouds are extensions of the ocean.

Despite appearing to the children as different forms, they all are pure water, and their ultimate reality is the ocean. From the ocean they come and to the ocean they return.

The currents hidden within the ocean illustrate the unmanifest inner dynamics of Consciousness, which we will examine later. The surface waves are the first manifestations of Consciousness. The clouds represent the manifest universe. The children's imaginations highlight how the perceived reality of all objects depends not only on the objects but also on the perceivers. Each child will see the clouds differently. Manifest reality, like ever-changing clouds, has a dual aspect: one apparent and subject to individual perception (a child's imagination), and one real, the essence — the ocean of Consciousness.

What we see depends on our state of consciouness



In the same cloud formation, each child sees something different based on their imagination and state of mind. Clouds are made of water from the same ocean and are extensions of the sea. They can appear different from the ocean, and in children's minds they form objects that appear different from the clouds.

Similarly, the ocean of Consciousness is all there is but appears as different objects, such as plants, animals, and people.

Depending on our own state of consciousness — our level of focus, clarity of mind, and comprehension — different levels of reality and understanding can dominate in our awareness.

* Philosophers call this a special kind of *monism*: a monistic idealism in which Consciousness is all there is and there is nothing outside of Consciousness. Monism in philosophy considers ultimate reality as being one rather than two or many. If ultimate reality is considered physical, the theory is physicalist; if nonphysical, the theory is idealist. Monistic idealism thus considers ultimate reality as one and nonphysical. For an in-depth look at this principle in modern philosophy, please see Appendix B.

* **Atomic quanta** – The term *quantum* (from the Latin, meaning "how much?") denotes in quantum physics both (1) the minimum value that can take a certain magnitude in a physical system and (2) the minimum possible variation of this parameter when passing from one discrete state to another.

** **Spin** – A physical property of subatomic particles by which every elementary particle has an intrinsic angular momentum of fixed value. It is an intrinsic property of the particle, as are mass and electric charge.

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CHAPTER 2

SUPERFICIALLY COMPLEX, FUNDAMENTALLY SIMPLE

The drive to understand the universe, and the sense that it has a holistic, unified basis to it, has tantalized and inspired Western minds for at least twenty-five hundred years. In ancient Greece, the wellspring of Western culture, the pre-Socratic philosophers of the sixth and seventh centuries BCE marked a sharp break from the mythological vision of poets such as Hesiod and Homer.

These early philosophers were forerunners of the scientists of later centuries. Being mathematicians and astronomers as well as philosophical thinkers, they crafted non-mythological theories about the origin and nature of the physical world. Their main focus was to develop what today we would call a unified theory of nature.

- Thales (c. 624 – c. 546 BCE) speculated that all things arise from water and resolve into water, while maintaining their essence as water.
- Anaximenes (c. 585–c. 528 BCE) taught that the fundamental, underlying substance is air. When thinned, it becomes fire; when condensed, it becomes mist, clouds, or water, and then earth and stones. "Everything else," he said, "comes from these." Isn't this like what we have since believed or theorized about atoms, and then subatomic particles and the quantum realms?
- Anaximander (c. 610 – c. 546 BCE) postulated that the essence and first cause of all things must come from a realm beyond the elements such as water or air, a field of being he called the "boundless" or the "infinite." According to an ancient source, "He said that the first principle of things is of the nature of the infinite, and from this the heavens and the worlds in them arise."[1]

- The philosopher Heraclitus (c. 535–c. 475 BCE) taught that all of life is one, and the essence of it is not any material “stuff” but perpetual change.
- Leucippus and Democritus (fifth century BCE) developed a theory of indestructible atoms as the foundation of the material world. They were about twenty-two hundred years ahead of their time.
- Parmenides (c. 515–c. 450 BCE) taught that “all is one,” that the multiplicity of all form and motion is but the appearance of eternal and unchanging “Being.”

It is quite amazing what these early thinkers were able to accomplish without the benefit of high-tech instruments and advanced mathematics, solely by thinking deeply. Many of them had intuitions that point toward and parallel modern insights.

Progress toward a scientific understanding of an underlying unity has been steady and exciting, repeatedly bringing together different theories into a more coherent and integrated synthesis.

The first major step occurred in the mid-nineteenth century when Scottish theorist James Clerk Maxwell built on the experiments of Michael Faraday. Maxwell’s theory of electromagnetism connected two domains that had previously been considered unrelated: magnetism and electricity. Electromagnetism is now recognized as one of the four forces of nature, along with gravity and the weak and strong nuclear forces. Maxwell’s theory still holds, although it was supplemented by what is known as quantum electrodynamics (QED), which takes into consideration subatomic phenomena unknown in the nineteenth century.

The next major step took nearly a hundred years. In 1968, three scientists (Weinberg, Glashow, and Salam, soon to be Nobel laureates) combined the electromagnetic and weak forces in the electroweak unification. Then the strong nuclear force was added to electroweak unification in what is called *grand unification*.

The necessary next step for a truly unified field theory, or “theory of everything,” requires the inclusion of gravity, a discovery that so far has proved elusive. Most scientists now believe there is such a thing as superunification, but to demonstrate it experimentally, the energy that would need to be generated in laboratories (such as the Large Hadron Collider in

Switzerland) is beyond current capabilities and any foreseeable future technologies.

This quest to understand what nature is made of has led scientists to look beneath the visible cellular level to the molecular, atomic, nuclear, subnuclear, electroweak unified, and grand unified levels — many millions of times more minute than the atomic nucleus — and ultimately toward a unified theory of everything.

This march of discovery has essentially deconstructed the material universe, fracturing it into the tiniest bits of energy and then dissolving even those bits into abstract, fluid, pure energy fields. These fundamental fields appear to emerge from one even subtler field, which some of the greatest scientific minds cannot seem to refrain from calling a field of consciousness or intelligence.

For example, Sir James Jeans, the British physicist, astronomer, and mathematician, said:

> I incline to the idealistic theory that consciousness is fundamental, and that the material universe is derivative from consciousness, not consciousness from the material universe. In general, the universe seems to me to be nearer to a great thought than to a great machine. It may well be, it seems to me, that each individual consciousness ought to be compared to a brain cell in a universal mind.[2]

This concept of the nature of things, he said, is "very different from the forbidding materialism of the Victorian scientist."

As far back as the 1930s, Jeans said:

> [T]he stream of knowledge is heading towards a nonmechanical reality. . . . Mind no longer appears as an accidental intruder into the realm of matter; . . . we ought rather to hail it as the creator and governor of the realm of matter. . . .[3]

Austrian-Irish physicist and philosopher Erwin Schrödinger put it this way: "Consciousness cannot be accounted for in physical terms. For consciousness is absolutely fundamental."[4]

The American biologist George Wald, another Nobel laureate, observed that "mind, rather than emerging as a late outgrowth in the evolution of life, has existed always as the matrix, the source and condition of physical reality — the stuff of which physical reality is composed is mind-stuff."[5] Wald went on to say, "What we recognize as the material universe, the universe of space and time and elementary particles and energies, is then . . . the

materialization of primal mind. In that sense there is no waiting for consciousness to arise. It is there always."[6]

Discovering that Consciousness is all there is

So, how can mind, whether we think of it as our mind or the intelligence of nature (of which we are part), be seen as the creator and governor of the physical universe?

Fields and particles

I have been using the term *field* assuming you are familiar with it in a physics sense, but it is worth taking a moment to elaborate, as fields are central to our discussion.

We have all held a magnet in each hand and slowly brought them closer together. When the poles are the same, say, negative to negative, you feel

repulsion, and the magnets are as if magically pushed away from each other. If the poles are opposite, an attraction pulls the magnets together. This is the magnetic field at work, lively in the space between the metal bars.

The Earth's gravitational field not only exerts an attractive force on everything on the planet but also reaches into space, providing the exact amount of force to hold the Moon in its orbit.

Likewise, there are fields for every force and every particle. In contemporary physics, every fundamental particle is understood to be an excitation of a quantum field.

Unlike particles, which can be located at a point, fields extend into space. Particles have a momentum and trajectory, but fields ripple and wave, like water on the surface of a lake. Fields are understood to be primary ingredients of nature. Light waves (along with ultraviolet and infrared waves, radio waves, microwaves, and X-rays) are ripples in the electromagnetic field.

In its earliest years, quantum physics — the exploration of the realm of atoms and molecules — was known as quantum mechanics, the name indicating its origins in the classical Newtonian view of nature. (There are no "mechanics" in abstract, fluid fields.)

It was sometimes also called *particle physics* or *fine particle physics* to differentiate it from the physics of falling objects and colliding billiard balls, examples often used in high school physics classes to demonstrate the principles of classical physics. If you knew the facts about a physical system — the position, velocity, and mass of the billiard balls rolling on the table — you could predict the outcome. While this remains true of the surface macroscopic level of reality, it does not apply in the realm of atoms and subnuclear particles, which is characterized by probability and randomness.

Classical Newtonian physics describes the macrocosmic level brilliantly. As long as scientists were unaware of any dimensions more refined than the clunky stuff of the physical world, quantum mechanics was not needed or even dreamt of. But as soon as those subtler layers began to appear, scientists found that what happened at those scales was different from how things interacted on the macroscopic level. Law-abiding predictability and certainty collapsed. Researchers found they simply could not pin down, for example, the exact location of the electrons that were supposed to be orbiting the atomic nucleus.

Today, we all know many important facts that scientists had no clue about a hundred years ago. They had believed — and demonstrated — that the laws of nature applied everywhere. Mass, momentum, and other basic aspects of the physical world were well understood. Researchers into the subtle realms were thus dumbfounded, frustrated, and incredulous when they found that the old reliable laws of nature did not explain what they now observed. The old laws simply did not work in the domain of the atom.

To adequately describe nature at this deeper, more fundamental level, a new conceptual framework was developed — a new logic and mathematics. This was quantum mechanics, the study of the actions and interactions of very, very small particles. It was the beginning of a scientific revolution.

In the decades following the advent of quantum mechanics at the start of the twentieth century, physicists gained the ability to probe even more deeply into the fine fabric of creation. As research advanced and the atomic nucleus and the particles that compose it (quarks, leptons, and others) came to light, once again a new mathematical language had to be devised. The result was what is known as quantum field theory. With this step forward, quantum physics evolved from its particle-centered beginnings to the study of the fields underlying the particles.

In support of this view, Nobel laureate Frank Wilczek and his wife, Betsy Devine, wrote in their delightfully titled book, *Fantastic Realities: 49 Mind Journeys and a Trip to Stockholm*, that "electrons are no longer particles moving in space, elements of reality that at a given time are 'just there and not anywhere else.' Rather, they define oscillatory, space-filling wave patterns always 'here, there, and everywhere.' "[7]

In quantum field theory, wrote Wilczek and Devine, "the primary elements of reality are not individual particles but underlying fields. Thus, for example, all electrons are but excitations of an underlying field, naturally called the *electron field*, which fills all space and time."[8]

In his paper in the *American Journal of Physics*, entitled "There Are No Particles, There Are Only Fields," Art Hobson, emeritus professor of physics at the University of Arkansas, asked, "Are the fundamental constituents [of nature] fields or particles?" He answered unequivocally that "experiment and theory imply that unbounded fields, not bounded particles, are fundamental." Particles, in this view, "are epiphenomena arising from fields."[9]

The leading minds in physics now hold to this view. Steven Weinberg, for instance, distinguished scientist and Nobel laureate, wrote:

> Just as there is an electromagnetic field whose energy and momentum comes in tiny bundles called photons, so there is an electron field whose energy and momentum and electric charge are found in the bundles we call electrons, and likewise for every species of elementary particle. The basic ingredients of nature are fields; particles are derivative phenomena.[10]

Understanding the primacy of fields over particles, the abstract over the concrete, takes us one step closer to comfortably abandoning physicalism in favor of nonphysical Consciousness as the fundamental field of life and nature. It is only a small step from this explanation of fields to the understanding that Consciousness is primary and matter is derivative.

Nevertheless, some of the most accepted unified field theories, such as superstring theory and M-theory, while describing the unified field as nonmaterial, still cling to the assumption that the unified field must be somewhat physical.

However, in our description of the ultimate reality, we take the definition one step further by saying that the ultimate unified field is a field of Consciousness that is nonmaterial. It is made neither of particles nor of energy, at least not as physical energy is commonly understood. This field cannot be described by the formulas of physics. It is nonphysical and has nothing physical in it.

Nature is structured in coexisting layers and levels of being. Looking at this from our human perspective, we would observe that the layers begin with the perceptually superficial, macroscopic, and concrete, and proceed down through ever subtler levels to the microscopic and beyond, to abstract fields and the unified wholeness at the core.

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CHAPTER 3

THE EMERGING SCIENCE OF CONSCIOUSNESS

The deeper we go into nature, the more vibrant with energy it becomes. Nuclear energy is much more powerful than chemical energy, operating at a level a million times smaller. According to the Consciousness paradigm, at nature's deepest level lies the unified field, a field of abstract silence, an unfathomably dynamic field of infinite potential. It is the womb of all of nature's expressions on every level, the source of immeasurable creativity.

Just like the stratified organization of nature from submicroscopic to macroscopic, from probability waves and quantum fields to mountains and planets, our bodies also present a manylayered wonder. Everything, animate and inanimate, organic and inorganic, has its home base in the unified field.

At their deepest level, our bodies are fields and patterns of fields that interact to generate atoms (mostly oxygen, hydrogen, carbon, and nitrogen), which in turn form molecules, including proteins, carbohydrates, fats, and the nucleic acids that comprise our genetic material, the DNA. Molecules are the basis of the next larger level, cells, which contain numerous organelles such as mitochondria and a nucleus, and which join to form organs (heart, lungs, liver, and so on) that in turn come together in organ systems to perform vital tasks such as digestion and respiration.

Whether we are talking physics, biology, or the mind, all the levels of being are simultaneously present — from concrete to abstract, from the obvious to the hidden. Our conception of what is true and real depends on where within that continuum we focus our attention.

On the surface levels, based on our sensory experience, only material objects seem real. In the quest for the ultimate reality, however, it makes perfect sense to say that particles are derivatives or expressions of fields and that the unified field is the one essential reality. At bottom, beneath all layers and expressions, that is what you find: that infinite, unbounded nothingness.

Everything is made of that, in the way that a gold bracelet, a gold ring, a gold chain, and a gold statue look different externally but are all formed of the same material. The forms may change, but the essence remains constant.

We sit at tables, talk to our friends, enjoy our dinners. But at the same time we can understand that the friends, tables, and dinners are also, as the Upanishads say, “nothing but that” at their fundamental level of being. We all are nothing but *that*.

It can be a mind-stretcher when we try to consider all of this intellectually. But I discovered that there comes a time in one’s evolution of consciousness when the unity of life becomes absolutely real on the level of direct experience. Throughout the ages, people who want to know the truth, who want to grasp the infinite potential that comes with being human, cherish the path to that state traditionally known as *enlightenment*.

Many of us see the world in terms of the same general scientific paradigm that has prevailed for about three hundred and fifty years in the West. This view understands the world to be made entirely of physical, material stuff. It is also a central tenet of our scientific worldview that our consciousness is derived from or is an expression of the physical nervous system and the brain. These two notions are integral to how most of us understand the world. They are also incorrect.

Consciousness need not be a mystery

Scientists are gathering massive quantities of data on various modes and permutations of consciousness and how those modes are correlated to physiological, bioelectrical, and biochemical processes. They have learned a great deal that will positively impact our health and well-being.

What scientists do not know is how our abstract, nonphysical consciousness and subjective conscious experiences could possibly emerge from matter, or if, indeed, they do.

Until recently, scientists generally had not taken consciousness seriously as something to study. This is the natural consequence of a scientific practice that is concerned only with the objects being studied and not concerned at all with the subject, the inner person who is studying the object. For the past several hundred years this has been the central thrust of science. Subjectivity was cast aside as too variable and conditional, and scientists sought instead to observe, measure, understand, and manipulate the physical world.

In my medical studies and research, consciousness as such was never a topic of study. We learned about waking, dreaming, and sleeping as well as various altered states of consciousness, such as vegetative states and coma. The questions of what consciousness is, where it comes from, and how it relates to the physical were left to philosophy and, to some extent, psychology and psychoanalytic research. It was not until I started to practice Transcendental Meditation and met Maharishi that I began to understand the full relevance of consciousness.

The ancient Vedic tradition from which Maharishi came provides the basis for an accurate and more complete science of consciousness. It offers a comprehensive theory for understanding the nature of consciousness, along with practical technologies for various applications. In the same way that the Western tradition has emphasized the outer, perceived physical aspects of existence, the Vedic tradition has focused on the inner aspects. Modern science developed various research techniques and computational methods with a wide range of applications in the material field. Similarly, the ancient Vedic tradition offers techniques and methods with a wide range of applications in the field of consciousness.

The focus on the physical aspects of existence has enormous value. It has transformed the way we live. However, these advances and their misuses have also brought unprecedented destructive capability, pollution, the annihilation of species and even entire ecosystems, and other horrors. In later chapters, I will show how a science of consciousness based on the technologies of the Vedic tradition promises to bring greater completeness to human knowledge and help correct the imbalances that arose from excluding the study of consciousness from modern science.

The primacy of Consciousness

In the early twentieth century a small group of scientists working in subatomic physics opened a portal to a different way of thinking. They discovered that the measuring process of an observer could not be separated from the behavior of the object of observation.

Some thinkers have known this for centuries. Put in simple terms: consciousness is fundamental to all experience, whether in the context of our everyday perceptions or in the minutely calculated and executed measurements of science. Many scientists, intent on objectivity, have reluctantly come to this conclusion as well.

In an often-quoted remark, John Wheeler, a distinguished American physicist, said:

> Nothing is more important about the quantum principle than this, that it destroys the concept of the world "sitting out there," with the observer safely separated from it by a 20-centimeter slab of plate glass. Even to observe such a minuscule object as an electron, he must shatter the glass. He must reach in. . . . Moreover, the measurement changes the state of the electron. The universe will never afterwards be the same. To describe what has happened, one has to cross out the old word "observer" and put in its place the new word "participator." In some strange sense the universe is a participatory universe.[1]

This recognition of the primacy of consciousness has made it not merely a reputable field of study but has placed it at the leading edge of scientific thought and investigation. Calling attention to "a bracing new field, the science of consciousness," Harvard psychologist Steven Pinker noted, "Questions once confined to theological speculations and late-night dorm-room bull sessions are now at the forefront of cognitive neuroscience."[2]

Not only is consciousness a hot topic among progressive, outof-the-box thinkers, but even conservative university textbooks now devote at least a chapter to it.

From the current scientific perspective, the familiar and intimate field of our own consciousness is, however, a kind of anomaly. As the authors of the standard fundamental neuroscience textbook state, "The brute fact of consciousness comes as a total surprise; it does not appear to follow from any phenomena in traditional physics or biology." If there is to be a viable science of consciousness, the authors argue, it must be able to answer the critical question, "*What is the nature of the relationship between the immaterial, conscious mind and its physical basis in the electrochemical interactions in the body?*"[3] Science is far from having that answer.

The philosopher David Chalmers is on the same page with his own research and reasoning. "I think we're at a kind of impasse here," he said in a 2014 TED talk. "We've got this wonderful, great chain of explanation . . . where physics explains chemistry, chemistry explains biology, biology explains parts of psychology."[4]

But consciousness doesn't fit into this picture, he points out. On one hand, it's a simple fact that we are conscious. Yet, he says,

> [W]e don't know how to accommodate it into our scientific view of the world. So, I think consciousness right now is a kind of anomaly, one that we need to integrate into our view of the world, but we don't yet see how. Faced with an anomaly like this, radical ideas may be needed. We

> might need one or two ideas that initially seem crazy before we can come to grips with consciousness scientifically.[5]

It is remarkable that it has taken so long for consciousness to be viewed as a legitimate and significant area of study, as not only is it fundamental to all human experience but it is also a vast, complex, and multidimensional field. From one point of view, consciousness is extremely simple: it's just the fact of being awake and aware. But then we have the subconscious and the unconscious, dysfunctional and impaired states, and altered states and higher states of consciousness. There's the interplay of our subjective experience and the physical material of the nervous system. With all that we have learned about consciousness, there's much more that we don't yet know. What is consciousness, after all, and how does it come about?

Consciousness and matter, or mind and brain, have sometimes been considered to be interconnected and sometimes separate and distinct. The so-called *Cartesian dualism*, postulated by the seventeenth-century French mathematician and philosopher René Descartes, drew a sharp dividing line between mind and body that profoundly influenced thought in the Western world for centuries. In relegating mind and matter to separate ontological categories (although he proposed, incorrectly, that they could interact via the pineal gland deep within the brain), Descartes differentiated what has become objective, scientific materialism from the subjective realm of thought and spirituality. This separation has contributed to ushering in the modern scientific era but has also bred enormous misunderstanding. That division is now being healed by new knowledge supporting the sense that life is an undivided whole.

Nothing is more intimate and central to the life of a human being than our consciousness. It is the foundation of all our experiences. It would be hard, if not categorically impossible, to imagine an experience we could have without being conscious. All our perceptions and understandings and our communications with others are predicated upon consciousness. Thought, emotion, insight, memory, planning — all depend on consciousness. It is the one fundamental element at the basis of all that we think and do, all that we experience, both internally and in the world around us.

In the words of Antonio Damasio, professor of psychology, philosophy, and neurology at the University of Southern California and an adjunct professor at the Salk Institute, "Without the possibility of conscious mind we would have no knowledge whatsoever about our humanity, we would have no knowledge whatsoever about the world. We would have no pain, but also no joys. We

would have no access to love or to the ability to create. . . . Without consciousness, we would have no access to true happiness, or to the possibility of transcendence.”[6]

Consciousness is a part of our daily vocabulary. Ever since the women’s movement in the 1960s and 1970s popularized the idea of “consciousness-raising,” parallel concepts such as ecological consciousness, social consciousness, national consciousness, health consciousness, collective consciousness, and global consciousness have become prevalent. These forms of consciousness-raising all share the common thread that it is important to become more awake and more aware if we are to solve the myriad problems facing us.

As the saying goes, famously attributed to Albert Einstein, we cannot solve our problems on the same level of thinking that created them. These few words summarize our human dilemma and provide a persuasive rationale for the study and development of human consciousness. This principle asks us to consider what level of intelligence and insight we have, as individuals and as a species, and it sets an agenda for improving ourselves.

How clearly do we perceive, how profound is our thinking? Do we have deep knowledge of only a narrow bandwidth of information but not a wide-spectrum grasp of the whole? Are we experts in one field while failing to consider how our knowledge affects other fields and the world around us?

Science long neglected consciousness because it was subjective, nonphysical, and nonmeasurable. But that’s changing in a big way.

A recent Google search for “consciousness” yielded 1.87 billion results. Amazon listed 26,615 books on the subject. Thousands of articles, blogs, seminars, and conferences throughout the world are dedicated to understanding consciousness. University science labs are studying its neurophysiological correlates, looking at how the brain changes in different states of awareness. Some consciousness researchers are looking into phenomena that had recently been off-limits — altered states of consciousness, psychic phenomena, and higher states of consciousness.

What science knows (and doesn’t know) about consciousness

Consciousness remains an enigma to modern science. We do not know what it is or where it comes from. There are many theories but no consensus. Various philosophers, psychologists, and even physicists have their own angles. It is a

field full of ferment and disagreement, a wonderfully active field, bubbling with ideas.

One can readily understand why the physical sciences are perplexed by the phenomenon of consciousness. How does a bundle of neurons — a mass of wet gray brain matter — perform the millions of computations that give rise to subjective experience (if that's what in fact is happening)? The brain is theorized to have evolved somehow from an earlier, primeval state of biological mush to generate masterpieces such as Beethoven's Ninth Symphony, the complex equations of higher mathematics, Shakespeare's *Hamlet*, Michelangelo's *David*, and the Large Hadron Collider. Yet the response of some of our most brilliant scientists has been to look past the dilemma, leap across the perceived divide between consciousness and the physical, and assume that consciousness is just a product of matter.

Francis Crick, the molecular biologist and neuroscientist who was awarded the Nobel Prize for his co-discovery of the molecular structure of DNA, is representative of the prevailing Western view of consciousness, the physicalist model, when he states, "You, your joys and your sorrows . . . your sense of personal identity and free will, are in fact no more than the behavior of a vast assembly of nerve cells and their associated molecules."[7]

Certainly there is a correlation between brain states and subjective experience, but to say that a person is no more than the activity of a collection of nerve cells is not merely to conflate correlation with causation, but it also belittles the rich complexity and dignity of every human being. There is more to us than that.

Despite the self-assurance of many whose thinking is conditioned by the old materialist conception of reality, nobody knows what the link is between the brain's neuronal structure and internal subjective experience — what scientists call *qualia*, things like feelings, the appreciation of color and music, the sense of attraction and aversion, and so on.

Qualia are the qualitative and seemingly unmeasurable aspects of our subjective experience: what it feels like to see a beautiful sunset, perceive the color green, or hear a note played on a piano and feel how it's different from the same note played on a flute. These experiences differ sharply in kind from the objective description of the neurological mechanics of seeing or hearing. Physical sensations such as hunger and heat, emotions such as joy and fear, and moods such as boredom and restlessness are all in the realm of personally experienced qualia.

Philosopher and cognitive scientist Jerry Fodor sums up the state of scientific understanding about the origins of consciousness: “Nobody has the slightest idea how anything material could be conscious. Nobody even knows what it would be like to have the slightest idea about how anything material could be conscious.”[8]

Awareness. Alertness. Attention. Focus. Wakefulness. All these are aspects of consciousness. Consciousness, to define it simply, is the ability to be aware of something, to be awake and able to evaluate ourselves and our environment.

Yet not all agree on a definition of consciousness. What is the difference between awareness and consciousness? Suppose you’re asleep, and there are noises outside that you don’t hear. Yet you’re still a conscious being, even if momentarily unaware of the noises; you’re still aware of internal, mental phenomena such as your dreams, and your body is “aware” and constantly adjusting to external and internal variables such as temperature and blood oxygenation.

Awareness might be defined as being conscious of something, whereas consciousness is a state of being.

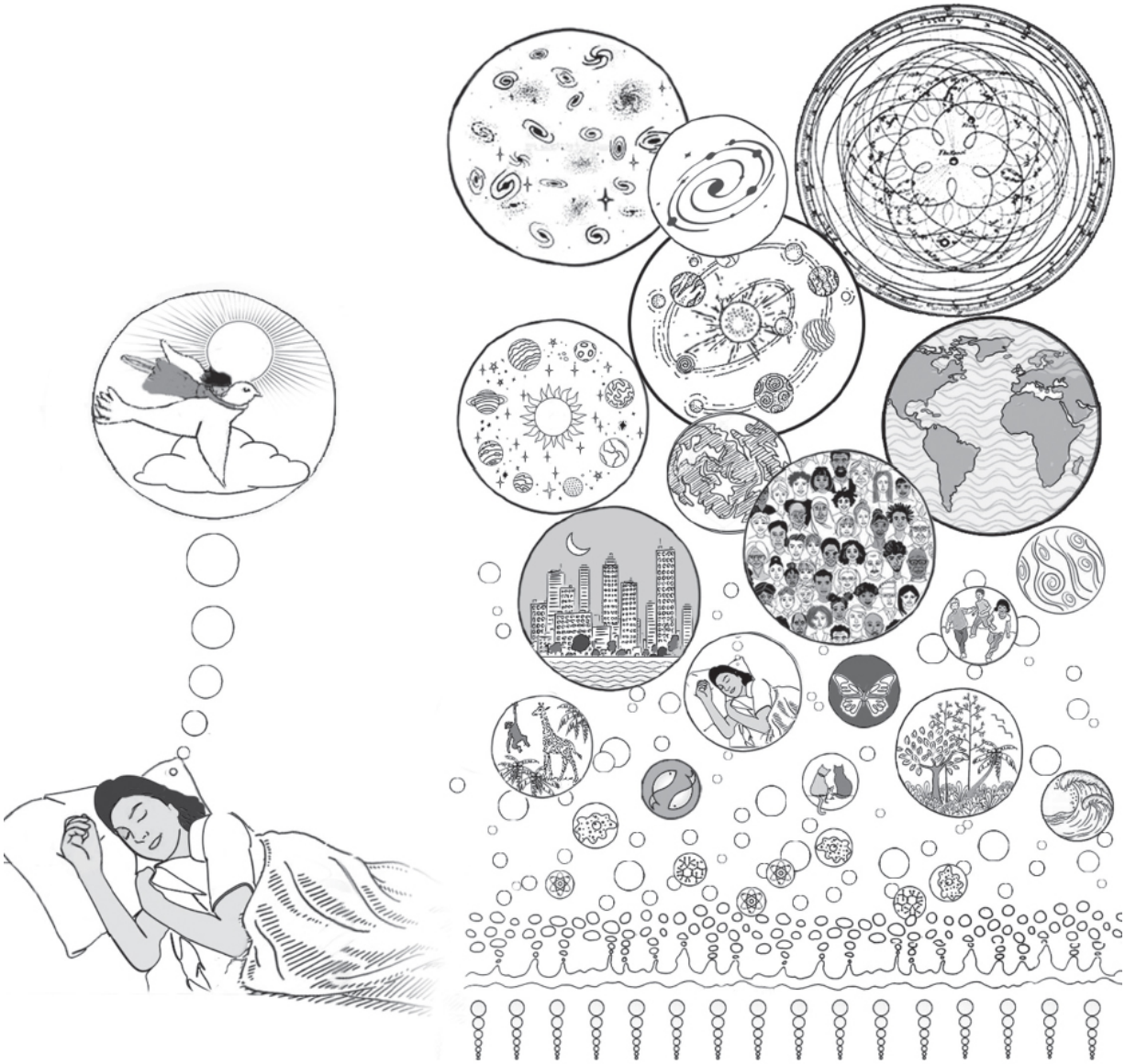
Imagine another example: You’re a guest at a party in a ballroom crowded with groups of people, each having a different conversation. You are a conscious person, but you are not aware of the substance of all those conversations.

Part of the problem is that scientists and philosophers use the terms *awareness* and *consciousness* interchangeably, so it’s not easy to pin down a precise definition, and science has not done so.

That there are various discrete states of consciousness is a relatively new understanding in science. Until the 1950s, science recognized only two states of consciousness: wakefulness and sleep. Each state displayed its own brain activity, range of metabolic activation, and biochemical markers. In 1953, rapid eye movement (REM) sleep was discovered, and unique brainwaves characteristic of dreaming came to light, leading to the recognition of dreaming as a separate state of consciousness.

Of course, dreaming is far from a new phenomenon. It has been mentioned in literature throughout the world for thousands of years, and is much referred to in the Bible, where dreams and their interpretations often played a major role in the lives of patriarchs such as Jacob (wrestling with the angel) and Joseph (predicting seven prosperous years and seven lean years). Students of Indian philosophy have delighted — and scratched their heads in

bewilderment — over the dreams-within-dreams of the classical text *Yoga Vasishtha*.



Unified field of Consciousness

On the left, a dream — a subjective, nonmaterial construct; for the dreamer, it is real. On the right, the objective, material reality we experience when awake, shown as quantum theory explains it: creation emerging from an infinite dynamism of quantum fluctuations bubbling incessantly in a vacuum according to physical laws. Dreaming is a state of consciousness, a perspective in pure Consciousness. Likewise, physical reality is rooted in an abstract field of energy that is also a perspective in pure Consciousness. Whether awake or dreaming, all that we experience as real is Consciousness: Consciousness is all there is.

“Even as from the waking state experience, there is no materiality in the objects seen in a dream . . . this world appears to be material yet in reality it is pure consciousness.” — Yoga Vasishtha[22]

But until the measurable physiological and neurological activity that accompanied the subjective experience of dreams could be identified, monitored, and quantifiably described, as far as science was concerned the dream state might as well not have existed.

That's because wakefulness, deep sleep, and dreaming are states of consciousness not just in the subjective sphere. Each has its own corresponding physiological mode of functioning, its characteristic physical signature. Your brainwaves and physiological patterns during waking — including metabolic rate, cardiac activity, and body chemistry — are different from when you are dreaming and in deep sleep.

Medical science explains dreaming as a means of stress release, acting out unconscious desires, and venting the nervous system. Studies show that dream deprivation leads to mental and physical disturbances. Apart from the role and meaning of dreams, it's interesting how dreaming, a particular mode of nervous system functioning, compels us to experience and accept something purely imaginary as real.

This highlights how our perception of reality is subjective and depends on the functioning of our nervous system. It emphasizes the fact that we perceive only those aspects of reality that our instruments of perception (our brain, sensory apparatuses, and nervous system) allow us to experience.

This is illustrated by a well-documented neurological condition known as synesthesia, in which two or more of a person's senses are attached, forming a relationship. Exciting one sense will stimulate the other. The most common effect occurs in people who see certain words or letters in particular colors, when everyone else might see just black type. It is believed that at least one in every ten thousand people has the condition. If it is possible for so many people to see things so differently from other people, then it seems likely that there are virtually an infinite number of other ways in which we all could be perceiving reality differently and uniquely.

The relationship between consciousness and physiology is intimate and reciprocal: every change in your physiological state, including such mundane factors as the food you ate for lunch and whether you are rested or tired, is accompanied by a degree of change in your mind and emotions. Similarly, when consciousness shifts — whether major shifts as from wakefulness to sleep, or minor shifts such as mood changes or perceptions — there is a parallel shift in physiological activation. This is well established and is sometimes referred to as the psychophysiological principle.

Imagine you're hiking in the mountains and are now on a path heading toward home. Evening is coming on quickly. Suddenly, in front of you, you see a snake, curled up and ready to strike. The fear reaction creates immediate chemical cascades in your physiology. Adrenaline floods your bloodstream. Your blood pressure rises. Your heart speeds up and pumps more blood.

This chain reaction has been thoroughly studied and now goes by the rather daunting descriptive term *psycho-neuro-endocrineimmune system reaction*. It means that your perception triggered a full-scale shift in bodily functioning.

But the snake you thought you saw wasn't a snake at all, it was just a length of rope that you mistook for a snake. It was the *thought* that created the physical reaction. As I said, the relationship between mind and body is intimate.

Impaired or induced states of consciousness

Let's continue our exploration of how far our modern physical sciences have come in expanding our understanding of consciousness and the various states that consciousness appears to take.

While wakefulness, the sleep state, and the dreaming state are generally considered normal states of consciousness, there appear to be numerous impaired or induced states of consciousness. One example is the condition induced by anesthesia, in which a patient is administered certain chemicals to temporarily shut off awareness, as if the brain goes to sleep. This chemically induced state has enormous benefits, allowing patients to avoid pain during lifesaving surgeries. But even though anesthesia has become a familiar part of modern life, it cannot be called a normal state of consciousness.

There is a family of impaired states, typically caused by brain injury, that resemble each other but are known to be quite distinct:

- *Locked-in syndrome* – In this rather awful state, the person is aware but all the voluntary muscles in the body are paralyzed. The person cannot move at all and thus cannot communicate normally. A frequent exception is that the eyes can shift and blink, which becomes the only possible means of communication. Locked-in syndrome is caused by damage to the brain stem and portions of the lower brain, but the functioning of the upper brain (the cortex) remains largely or completely intact. The person maintains awareness and can think in a normal way but is imprisoned in their body.

- *Vegetative state* – This is a similar but in some ways opposite condition, in which the upper portions of the brain (the cerebral hemispheres) are damaged while the lower portions are unharmed. In this coma-like state one will appear to go through normal cycles of sleeping and wakefulness and will show eye movements and some motor reflexes but will have no apparent awareness of self or of people and events in the environment.
- *Minimally conscious state* – As the name implies, a minimally conscious person has a severe but not complete shutting down of awareness and responsiveness. When the person's brainwaves and various physiological functions are monitored, it appears that they are going through cycles of waking, dreaming, and sleeping but are barely responsive to any stimuli. This state is like the vegetative state but not quite as extreme. Not until recently have neurophysiologists been able to distinguish between them; it is an important distinction, as a minimally conscious person has a better prognosis for at least a partial recovery than one in a vegetative state.
- *Coma* – This is the extreme example of impaired consciousness. A person in this state doesn't go through waking, dreaming, and sleeping cycles, is completely unresponsive, and appears to be totally unaware. However, numerous clinical cases have been reported in which a person in a coma has later described, with great accuracy, conversations and events taking place in their surroundings when they were thought to be unconscious and the brain was barely functional. These cases challenge the prevailing understanding that consciousness is caused or created by the brain.
- *Altered state* – One category almost everyone has experienced is a form of altered state involving changes in awareness, mood, or perception that can be precipitated either unintentionally (by factors such as high fever, sleep deprivation, or psychosis) or intentionally (induced, e.g., through fasting or by the use of alcohol and/or psychotropic or hallucinogenic drugs). Sometimes scary, sometimes ecstatic, usually somewhere in between, altered states as a rule are time-limited to a few hours, after which they fade.
- *Lucid dreaming* – You are dreaming, know you are dreaming, and can control the dream. You are the director: you control the story, change the outcome if it's not looking favorable, add or subtract characters, change

locations — almost anything goes. If you find yourself flying during a dream, and if you like it, you can decide to fly some more. Some people, if awakened from a lucid dream because of some disturbance, can decide to go back to sleep and pick up the thread and continue the same dream.

- *Sleepwalking* – Also called *somnambulism*, this is another paradoxical, altered state of consciousness. The person who sleepwalks typically gets up from bed in the first third of the night, during the "slow wave" stage of brain activity toward the end of the normal sleep cycle. Their eyes are open, yet they are asleep and have no self-perception of what they are doing. In their sleepwalking episodes, which may last anywhere from thirty seconds to half an hour, they can perform a number of activities, from simply going to the bathroom to cleaning, cooking, and even driving, yet they very rarely remember anything in the morning. Sleepwalking is more common in children than in adults and is usually outgrown by the late teens.

- *Hypnosis* – In this state, the subject is awake but unusually open to suggestion. Their decision-making appears to be somewhat under the control of the hypnotist. As defined by the Mayo Clinic, it is "a changed state of awareness and increased relaxation that allows for improved focus and concentration." Hypnosis is often used to promote cognitive and behavioral changes. It can be self-induced or aided by a therapist.

Our individual, limited selves are constructed on various layers of consciousness at many levels — for example, the atomic, molecular, cellular, and organ levels — all the way to complex and orderly interactions of all the layers leading to higher states of consciousness. When some layers are not functioning or are disorderly, we experience and live only a few aspects of what and who we truly are.

But the true, ultimate Self as well as the many limited selves are never gone, never lost. They are always there in their limited aspects as small selves or, in the case of the Self, the unbounded aspect of pure Consciousness. All that changes when we are in different states of consciousness is our ability to experience or live one dimension of our ultimate reality or another.

Subconscious and unconscious activity

At any moment, your brain is busy doing hundreds if not thousands of tasks simultaneously. While you are reading these pages with your conscious attention, your brain is monitoring and regulating dozens of internal bodily processes, deciding which of those activities may need to become conscious and possibly be acted on. Or your brain might be tagging some new information to be stored as memory while discarding other incoming data. All of this, and a lot more, happens outside your awareness. Most of what the brain does never reaches conscious awareness.

There is some debate about which aspects of this nonconscious activity should be labeled as subconscious and which as unconscious, though I think most would agree that it's primarily a difference of degree. Subconscious data lies closer to the surface of awareness, like directions to that shop on the other side of town, phone numbers, and the names of relatives' children — things you know but do not always use and that can be called to consciousness with relative ease.

The unconscious, on the other hand, harbors memories, fears, and other feelings that we may have forgotten, perhaps because they were painful, but that we cannot readily access. According to this understanding, prominent in Western culture since the time of Freud, much of our mental life takes place in the dark, so to speak, below or outside our conscious awareness, yet has a powerful effect on our life in the present. This domain also includes our beliefs, which dictate what we think is right and wrong, possible or impossible. As we have mentioned, most of what the brain does never reaches conscious awareness.

Based on the theory of the unconscious, psychologists speak of *implicit learning*, a common way of information processing that is not fully conscious or intentional. We learn our native language in this way, and many of the behavioral patterns that we imbibe in our family and cultural settings are learned implicitly, by example and a sort of osmosis, as opposed to the intentional way we might learn geometry, computer programming, or neuroanatomy.

A related phenomenon is called *implicit memory*. We learn certain skills, forget about them, and, when needed, can call upon them easily. Riding a bicycle, dicing vegetables, driving a car, and brushing our teeth are all skills of this kind. Learning them takes active intention and attention, but once they are learned they become automatic.

This is interesting from a neurological perspective, in that the active learning phase requires a substantial output of energy in the brain, so brain

metabolism — that is, oxygen utilization — increases. Once you've learned the information or behavior, energy activation declines as the information is stored in memory. Then to access and utilize it is easy; we don't have to think about it. Many of us have had the experience of driving a car as if on autopilot, somehow managing to drive quite a few miles while thinking of something else, our conscious mind engaged in problem-solving or daydreaming while our unconscious mind handles the car. This is yet another variation of what we could call the *play of consciousness.*

We can also differentiate between background consciousness and foreground or actual consciousness of the present. Background consciousness is our sense of self, who we feel we are, our human and personal identity. Although we don't actively think about it during the day, we all have a general sense of who we are, our name, our profession, our roles, and our relationships with others. This all goes on unnoticed in the background of our consciousness. In the foreground are the specifics of today's experience: what we think about and put our attention on, our perceptions, thoughts, intentions, desires, and the actions we undertake.

The fourth state of consciousness

So far, I have outlined the known states of consciousness, normal and abnormal, which variously seem to both support and undermine the theory that consciousness originates from matter — from the physical, organic matter of the brain and nervous system.

In addition to the three modes of consciousness we all commonly experience (waking, dreaming, and sleeping), research since the 1970s has identified a crucially important fourth state of consciousness, the experience of pure Consciousness.

Attained during deep meditation and characterized by a paradoxical combination of an awake, alert, but quiet or even silent mind along with a relaxed and restful body, this is not ordinary wakeful awareness, in which there is the observer (one's self) and an object of perception. It isn't deep, dreamless sleep or dreaming. It's a fourth natural state of human consciousness, characterized by both a subjective mental component and a set of physiological correlates.

In the yoga tradition this state is known as *turiya*, meaning "the fourth," and as *samadhi*. I will refer to it as *Transcendental Consciousness* or *transcendence*. It involves a quietening of the mind, transcending or going

beyond active or excited mental states to a silent, peaceful, inner, often luminous awareness. In this state, one does not experience any particular thought or object of perception but only Consciousness itself: Consciousness awake and open to itself.

Many people, now and over the centuries, have reported experiencing this state of inner silence. In Buddhism, this is *nirvana*. The great spiritual traditions describe this as an experience beyond the senses, mind, and intellect. This unique experience is so allencompassing and fulfilling that through the ages even glimpses of it have moved people to the pursuit of higher knowledge, toward a spiritual attainment felt to be greater than any knowledge gained through sensory or intellectual approaches. From this perspective, ultimate truth is found deep within human consciousness — in what is traditionally known as the big Self or pure Being.

Discovery of the fourth state of consciousness

Scientists studying the effects of Transcendental Meditation discovered that during TM practice the physiology shifts into a unique state of restful alertness — deep relaxation coupled with heightened alertness and more holistic and integrated brain functioning. Researchers declared this to be a fourth major state of consciousness unlike waking, dreaming, or sleeping.

The TM technique is the only form of meditation that scientists have found to consistently induce the fourth state (also known as Transcendental Consciousness). This was a new discovery for science, but in the ancient Vedic tradition this experience of transcendence has long been identified as the authentic meditative state, referred to in Sanskrit as *turiya*, meaning “the fourth.”

In religious or spiritual contexts, this experience of ultimate transcendence is sometimes characterized as communion with the divine or what the Bible refers to as “the peace of God, which transcends all understanding.”[9]

As the experience develops and matures, some people find that consciousness evolves beyond the inner transcendental state to an awareness of the unity or wholeness of all life.

Many of the famous saints throughout history have described these sorts of experiences. But for those of us who have never had such experiences, it is hard to appreciate that consciousness is possible without an object outside itself. Brentano, Husserl, and Sartre, for instance, who probably never knew this experience, could not conclude that consciousness can exist without an object, and so the process of self-consciousness in their vision required first an object of perception.

What they and others did not realize is that the object of consciousness can be consciousness itself, in a self-referral process. Their conclusions were based on philosophical reasoning, logic, and their experiences of reality. Not having experienced Transcendental Consciousness, where Consciousness observes itself, they had no way to appreciate this possibility.*

I will have a great deal to say later about the fourth state of consciousness as a scientific discovery and the potential it offers for human flourishing. Here, I am putting forward the theory that Consciousness is fundamental and not produced by the brain. When the brain is damaged, the victim’s consciousness may diminish or disappear. Some might see this as evidence that the brain produces consciousness, but that is not the whole story.

Turn on a radio and you hear music. Does the radio itself produce the music? Of course not. The radio is a transducer, transforming the radio waves into sound waves that you can hear. If you break the radio, the music stops, but this doesn’t mean the radio created the music. The music came from the waves propagating through the electromagnetic field.

The brain is a kind of a transducer of consciousness, facilitating human experience. Damaging part of the brain may lead to unconsciousness. But does the brain produce consciousness? It does not. Consciousness in its essential nature is beyond the brain, beyond individuality. It is unbounded pure Being, the unified field, the Self of everyone and everything.

Our human physiology is a construct of Consciousness that can experience different aspects of Consciousness and even live that field of pure Being in its totality. But the brain does not generate consciousness. Our body is an instrument made of patterns and networks of Consciousness that appear as

our self, allowing Consciousness to be expressed and developed to higher states.

As we unpack this Consciousness paradigm, we will see that the brain itself is made of patterns of Consciousness, that its neurons with their networks are patterns of Consciousness within Consciousness. Modifying those patterns of Consciousness (e.g., altering or damaging neuronal activity) leads to different subjective experiences.

How far does consciousness reach?

Who besides humans possesses consciousness? Monkeys? Dogs? Trees?

Not long ago, many scientists believed that humans were unique in being conscious. That view has been discredited, as a wealth of research has revealed the sometimes astounding examples of animal intelligence. In his 2016 book *Are We Smart Enough to Know How Smart Animals Are?* the noted primatologist Frans de Waal remarked:

> Almost every week there is a new finding regarding sophisticated animal cognition. . . . We hear that rats may regret their own decisions, that crows manufacture tools, that octopuses recognize human faces, and that special neurons allow monkeys to learn from each other's mistakes. We speak openly about culture in animals and about their empathy and friendships. Nothing is off limits anymore, not even the rationality that was once considered humanity's trademark.[10]

Elephants, for example, which the Greek philosopher Aristotle called "the animal which surpasses all others in wit and mind," have long-term memory that sometimes reaches back for decades and have been observed to grieve the death of a fallen comrade. A recent article in *Scientific American* observed that elephants "are adept tool users and cooperative problem solvers; they are highly empathic, comforting one another when upset; and they probably do have a sense of self."[11]

Orangutans, chimpanzees, and other nonhuman primates have developed vocabularies of up to two hundred words and can construct simple sentences using signs, symbols, flash cards, and even a simplified computer keyboard.

Most people accept that some of the "higher" mammals have consciousness. But how far "down" on the evolutionary scale does consciousness go? Crows' intelligence and tool use is legendary, and the navigational prowess of migrating birds and butterflies is awe-inspiring.

Of course, all creatures large and small seek safety and nourishment. In their search for food, they recognize what is appropriate for them and ignore other options. Have you ever watched a fly ingeniously evade attempts to

swat it, or seen a spider scurry for safety? These tiny beings may not be (surely are not) conscious in the way we are, but they recognize danger and they know where safety lies. Clearly, they have awareness of their environment. Even single-cell creatures have a modicum of consciousness in that they move toward food and away from danger, which means they are aware of the difference.

In his book *What a Fish Knows: The Inner Lives of Our Underwater Cousins*, Jonathan Balcombe, director of animal sentience with the Humane Society Institute for Science and Policy in Maryland, deftly removes many common misconceptions about fish and demonstrates their astonishingly conscious behavior. Fish can use tools, he tells us. Some fish species dig clams out of the sand and, to crack open the shells, carry them in their mouths until they find a rock to smash them on. Many fish species deploy complex mating rituals, develop lifelong relationships with partners, and hunt collaboratively. Some seek to deceive or win the favor of others, and some punish those who violate customs. With senses rivaling our own in sophistication, many can identify individual fish by facial patterns and communicate among themselves using electric signals.[12]

Plants lean toward light and extend their roots toward water, so clearly they are aware of their surroundings. But recent studies have demonstrated that their consciousness goes far beyond those simple responses. According to Michael Pollan, author of popular science books such as *The Omnivore's Dilemma*, plants exhibit numerous sophisticated behaviors. They can sense and respond to many environmental variables, including "light, water, gravity, temperature, soil structure, nutrients, toxins, microbes, herbivores, chemical signals from other plants," so that it seems they may possess "some brainlike information-processing system to integrate the data" and come up with a behavioral response. They have, Pollan reports, "between fifteen and twenty distinct senses, including analogues of our five: smell and taste (they sense and respond to chemicals in the air or on their bodies); sight (they react differently to various wavelengths of light as well as to shadow); touch (a vine or a root 'knows' when it encounters a solid object); and, it has been discovered, sound."[13]

How do plants do this without brains and nervous systems? Pollan cites studies that have found chemical and electrical signaling systems in plants analogous to those in animals' nervous systems, and the presence of neurotransmitters including serotonin, dopamine, and glutamate.

These findings suggest that consciousness and intelligence — far from being uniquely human — pervade the entire range of life. If, as I believe, Consciousness is the foundation, source, and essential nature of all that exists, then it should be no surprise to find that all living things possess consciousness. This idea, considered preposterous a few years ago, is gaining traction among scientists.

Are computers conscious?

If we can ascribe consciousness to plants, what about computers? As we consider consciousness, we must consider the new forms of technological "life": machines with artificial intelligence (AI).

Are computers, robots, and other AI-driven machines conscious? Philosophers and cognitive scientists are busy drawing up criteria indicative of consciousness, such as awareness of the environment and the ability to respond to it in suitable ways, and then looking to see if artificial intelligence can measure up.

An ultra-simple example: Are thermostats conscious because they can detect temperature changes and make appropriate modifications in a heating/cooling system? Does the ability to accumulate and store information and use it to answer queries, play chess, make calculations, or predict and monitor the path of a rocket indicate consciousness? Is Siri conscious or just a program created by beings who are conscious? Can AI entities rival the complex intelligence of humans or are they destined to always be, aside from in science fiction, servants of humanity?

The ancient game of *Go*, played throughout East Asia for more than twenty-five hundred years, requires not only strategic thinking but also creativity and intuition. It's considered exponentially more complex and difficult than chess. In 1997, IBM supercomputer Deep Blue won the first-ever tournament against world champion chess player Garry Kasparov, in a match considered a turning point in the effectiveness of AI. It took almost twenty years more for a computer to best an international Go champion. In March 2016, Google's DeepMind AlphaGo program defeated highest-ranked professional Go champion Lee Sedol in a five-game match. And it won again against Go world champion Ke Jie in May 2017.

According to a recent analysis,

> AlphaGo is most significantly different from previous AI efforts in that it applies neural networks, in which evaluation heuristics are not hard-coded by human beings, but instead to a large extent

learned by the program itself, through tens of millions of past Go matches as well as its own matches with itself.[14]

In other words, it is largely and continuously self-taught, to such an extent that "not even AlphaGo's developer team are able to point out how AlphaGo evaluates the game position and picks its next move." This makes it all the more difficult to identify criteria capable of determining whether AI machines can be considered conscious.

There is a larger question, though: Could consciousness be more than an individual phenomenon, not just the product of a single nervous system but rather a universal characteristic of life? If so, then its expression, what it looks or feels like, would depend on the character of the nervous system reflecting it, in the same way that white light clothes itself in different garbs according to the reflecting medium.

Levels of consciousness

We find consciousness (depending on how we define it) in a wide range of living things — not only in humans and primates but in dogs, cats, elephants, dolphins, spiders, bees, amoebas, and plants. This begs the question: Are there degrees or levels of consciousness? Surely dogs and bees are not conscious in the same way we are. Can we ask how conscious any particular entity is?

Let's look at this question from two perspectives. From the physiological standpoint, the term *level of consciousness* refers to how awake and alert we are, how ready to respond to stimuli. We've all experienced greater and lesser alertness. When we're short on sleep, our minds are less sharp and our senses less acute. When we're rested, we're more aware of our surroundings, such as a nearby driver changing lanes at the edge of our vision.

The mechanism that modulates the level of awareness in the human nervous system is the reticular formation in the brain stem. It's like a thermostat that turns our degree of awareness up or down. When you're drowsy, the reticular formation calls the shots, turning down the thermostat to lead you toward rest. When it's time to wake up, the reticular formation catalyzes the autonomic nervous system and endocrine system, accelerating heart rate, increasing blood pressure, and promoting sensory alertness.

But there's another way to think about levels of consciousness, one having to do with psychological and spiritual development. This is less about sensory

alertness and more about a broader, more open-ended experience of life, with expanded possibilities for perception, behavior, growth, and fulfillment.

With a higher level of consciousness, we are aware of more, understand more, and are less bound by past patterns of thinking and behavior. We have greater freedom of choice and action because we see more possibilities. We have a richer experience of outer values of life and we are more awake to the underlying unity that connects us all on a deep level of silent awareness.

Solving the "hard problem" of consciousness

David Chalmers distinguishes between what he calls the *easy problems* and the *hard problem* of consciousness. The easy problems of consciousness involve discovering the neural basis or correlates for mental functions, such as memory and forgetting, while the hard problem is to understand and explain why and how anything in the physical realm could result in subjective experience in the first place.[15]

Easy problems entail unraveling the equivalent of such questions as how many galaxies there are in the universe, how many universes there are in a multiverse, and what is the Higgs boson and why is it important? What are dark energy and dark matter and how many dimensions are there? Not easy, you say. Of course not. But the point is that they are all questions that physicists and cosmologists believe, in time, we can answer. They are considered easy because they are like other questions that have been answered. They involve objects that can be measured and quantified: How many? How much? How big? How fast?

The easy problems in the field of consciousness are likewise problems that scientists feel confident they will one day be able to resolve, involving neural processes that can be measured and, in time, understood and explained.

How our vision works, enabling us to see, is an easy problem. Though highly complex, it's been largely solved. When you look at a red rose, photons of various frequencies enter the eye and travel through the cornea, lens, and vitreous body in the middle of the eyeball. They reach the retina, an extraordinarily sensitive tissue best understood as an extension of the brain, where a series of complex neural events occurs. Here the light excites some neurons and inhibits others. (To the individual receptor cells in the retina, there is no such thing as a flower or any other object: in a process similar to the binary code that runs your computer, the cells are essentially biological zeros or ones, either off or on.) The neurons release chemicals that catalyze

electrical activity, which goes first to the thalamus, then to your primary visual cortex in the occipital lobe (back of the brain), and then to the visual association area. This information combines with your memory and you feel this is a red rose.

Delineating such neurological processes is the easy task. The difficult question to answer is: How does the physical brain give rise to the subjective experience of consciousness? How does it happen that you subjectively experience the redness of the rose? How is this possible? It's a universal phenomenon that we all accept uncritically. Yet it's astonishing. How can a mass of neurons inside our skulls be transmuted to manifest the experience of love, the color green, sleepiness, or enthusiasm?

Science does not know the answer, and some refer to this as "the explanatory gap." The fact that a specific part of the brain lights up on a PET scanner when we experience something does not answer the question; it is a mechanical answer but not the whole truth. It tells us there's a correlation between the experience and the brain, but it does not reveal how this abstract reality — my perceptions, my subjective experiences, my reactions to them — emerges from this very physical activity of the nervous system. The question remains: How can the objective events of physical perception leap the chasm to become subjective experiences?

There are, of course, many easy problems that we don't yet have a complete answer to (or in many cases even a clue), but researchers believe we will one day reach that goal. But when it comes to consciousness, they're not so confident. In his book, *Consciousness Explained*, the philosopher Daniel Dennett admits:

> We do not yet have the final answers to many of the questions of cosmology and particle physics, molecular genetics, and evolutionary theory, but we do know how to think about them. . . . With consciousness, however, we are still in a terrible muddle. Consciousness stands alone today as a topic that often leaves even the most sophisticated thinkers tongue-tied and confused.[16]

The Consciousness paradigm solves the hard problem of consciousness by recognizing that the brain does not give rise to consciousness at all. Rather, it's the other way around. Consciousness is primary, and all that exists is a manifestation within Consciousness. In later chapters we'll examine how Consciousness gives rise, or seems to give rise, to its manifestations: the physical universe.

Why mathematics works: everything is a permutation of Consciousness

One of the most remarkable features of the human quest to understand nature and the universe is the extraordinary correspondence between our conceptual formulations of the laws of nature, especially their mathematical formulations, and "the way things are" in the physical universe. This correspondence has amazed scientists for centuries and moved many, especially in earlier eras, to see mathematics as a window on "the divine mind," an intelligence or consciousness underlying the workings of both natural phenomena and the human psyche.

The correspondence between mathematics and nature is a principal tool — perhaps the quintessential tool — of the modern scientific method. Discoveries such as complementarity and nonlocality in quantum theory challenge our confidence that any mathematically described physical theory could ever perfectly correspond to physical reality. Nonetheless, developments in mathematical physics have allowed us to understand nature with much greater precision than was available in past centuries and, on that basis, to develop powerfully effective technologies to improve our quality of life.

Although we now know vastly more of the specific connections between mathematics and natural law, the basic principle of their correspondence was propounded more than twenty-five hundred years ago by the Greek mathematician and philosopher Pythagoras. His dictum, "All is number," has remained foundational to the progress of science.[17] At the dawn of the scientific age, the tenet was echoed by Galileo, who described the universe as "this grand book" that "is written in the language of mathematics."[18] In modern times, Einstein marveled at this correspondence between the physical and the inner realm of thought: "How can it be that mathematics, being after all a product of human thought, is so admirably appropriate to the objects of reality?"[19]

In his influential paper "The Unreasonable Effectiveness of Mathematics in the Physical Sciences," the Nobel laureate physicist Eugene Wigner expressed wonderment that the mathematical formulations of physicists lead "in an uncanny number of cases to an amazingly accurate description of a large class of phenomena."[20]

In the spirit of the great Greek philosopher-scientists such as Thales, Anaximander, Anaximenes, and Heraclitus, Pythagoras sought a unifying principle to connect all the phenomena of nature in one comprehensive theory. For the others, the unifying factor was conceived of as a substance, a physical element such as water or fire, whereas for Pythagoras the unifying theme was in the purely abstract realm of numbers.

As the contemporary astrophysicist Marcelo Gleiser explains, "If all things have form, and forms can be described by numbers, then number becomes the essence of knowledge, the gateway to superior wisdom." And further, "If knowledge is the pathway to apprehend the divine, numbers become the bridge between human reason and the divine Mind."[21]

In light of our working theory that Consciousness is all there is, I would phrase it somewhat differently: Because all that exists is nothing but Consciousness, and all things — whether thoughts, trees, planets, or universes — are modes and networks of Consciousness, those patterns of being are all the play of Consciousness within itself, and they operate both in the external realm of objects as well as in the internal, subjective realm of conceptualization. Thus, we find those same patterns of being, both in the world and in our minds.

Those patterns of Consciousness construct our minds, our nervous systems, and our universe. Therefore, what makes sense to our minds inwardly also applies outwardly. Mathematics reflects the universe because the complexities of our minds, our physiologies, and the universe all occur within the one Consciousness.

This correspondence is not restricted to mathematics. Every branch of the sciences, arts, and humanities — in short, every field of human knowledge and activity — reflects the dynamics of nature's laws. The various structures of human languages, the narratives we tell one another, and our traditional cultural practices all display the same patterns of Consciousness expressed in our nervous systems and our universe.

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* Husserl, toward the end of his life, did postulate the existence of an inner ego as a potentially primary object of awareness.

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CHAPTER 4

WHAT IS CONSCIOUSNESS?

Now it is time to define consciousness more fully. Where does it come from? Is it a thing-in-itself, self-existent in some way?

Because all the modes of consciousness that cognitive scientists, psychologists, psychiatrists, and other researchers have been looking at over many decades are associated with varying styles of physiological functioning, and because changes in physiology, and in particular the brain, have been shown unequivocally to induce changes in conscious awareness, the assumption has been made that consciousness is a product of neurophysiology, of the bioelectrochemistry of the material brain.

This is a sensible hypothesis and is still widely taken as truth rather than theory. But my studies with Maharishi led me to an entirely different way to understand consciousness, one that draws support from long-established principles of ancient cultures whose specialty was consciousness. These traditions include most notably the Vedic civilization of India, which studied not only the origin and nature of consciousness but also how to facilitate its development well beyond the usual states known to contemporary science.

All that I've been talking about thus far has been based on the currently prevailing view, the perspective of modern science, and indeed of modern culture in general, that what is real is the material world as it appears to our senses and the technological extensions of our senses such as electron microscopes, magnetic resonance imaging (MRI), and radio and optical telescopes. This is the stuff we can touch, weigh, measure, take apart, and analyze: the tangible, physical, material stuff of everyday life. Only this is real.

The materialist paradigm so dominates our thinking that when something seems irrelevant or unimportant, we say it's "immaterial" or "insubstantial." We critique arguments by calling them "tenuous," "lightweight," "airy." We avoid buying things that don't seem "solid" or "substantial."

And consciousness, which is intangible and nonmeasurable, seems to be a derivative phenomenon. Subjectively, we know it exists, though we don't really know what it is, much less where exactly it's located.

I believe, however, that Consciousness is not only real and not only primary but is also the *only* reality. Everything — everything we see, hear, touch, taste, smell, or measure — is a play or manifestation of the one Consciousness.

Scientific theory, and mathematical theory in particular, advances by means of axioms, which are tested by logic and by the effectiveness of their application. Here is the primary foundational axiom of the theory I am proposing:

Consciousness exists.

Consciousness is all there is.

Consciousness is conscious.

The idea that Consciousness is all there is may at first seem outrageous, but from the perspective of what is known today about the nature of the universe, it is a far more reasonable evaluation of how things are than the perspective that takes matter to be the fundamental reality.

I know that this is counterintuitive. How can we doubt the reality of the stuff that surrounds us, the stuff we appear to be made of?

Yet this is the same challenge that people faced centuries ago when asked to understand that the Sun does not rise in the east in the morning and travel overhead to set in the west in the evening. They were told that the world they lived in was not flat, with the Sun, Moon, and planets circling around it, but was a globe that spins on its axis every twenty-four hours (at more than one thousand miles per hour), thus creating the illusion that the Sun was rising and setting. How could people believe such a bizarre story when they could see with their own eyes that it is not true?

From this history we know that our intuitive sensory perceptions sometimes mislead us about the reality of things and may be completely wrong.

I have already discussed how physics, in its steady pursuit of what is the ultimate substance or source that gives rise to the material world, has probed ever deeper into the structure of reality and discovered a rather astonishing

fact that, even when we become familiar with it, remains astonishing: the basic stuff of nature is not physical at all. The so-called building blocks of the material universe are not made of matter. Indeed, not even matter is made of matter. Below the surface is a stupendously dynamic realm of limitless, buzzing energy. As energy, it is nonmaterial yet still belongs to the physical realm.

Most scientists now believe that even deeper down into the creative heart of things there is a completely unified field that is the fountainhead of the entire physical creation and all its energy and matter fields. Physicists suggest that this is the constant birthplace of not only our world but also the entire universe, forever bubbling and boiling into the fine particles of the quantum realm. This singularity — an unbroken field of pure, unexpressed existence — is what could be called ultimate reality, or at least the truth of what our universe is made of. And I am saying that it is entirely nonphysical.

As the eminent Danish physicist Niels Bohr commented, "Everything we call real is made of things that cannot be regarded as real"[1] — that is, if "real" equates with physical or material stuff.

So, what is it if it is neither matter nor energy?

Sir Arthur Eddington's work persuaded him that "the stuff of the world is mind-stuff"[2] — Consciousness.

And this is my thesis: that the singularity at the heart of nature and the universe is Consciousness.

Whereas we mortals experience consciousness as a personal, subjective phenomenon, I am proposing that there is a Consciousness that exists in and by itself, independent of any personal owner of that Consciousness, and that this Consciousness is all there is.

This idea is not new. Its most ancient proponents were the seers and teachers in the Vedic tradition of knowledge in India, particularly Vedanta, a branch of Vedic knowledge that means "end of the Veda," *end* as in "completion" or "goal." This, I will argue, is the highest level of knowledge, which Maharishi brought to light and expounded.

From the postulate Consciousness is all there is, I derive the corollary that everything that seems to be separate from Consciousness is not in fact separate. Consciousness is neither duality nor multiplicity but rather a single unified reality.

Consciousness: the ultimate singularity

To reiterate and clarify: In proposing that Consciousness is primary, I mean there is a primordial Consciousness, a nonmaterial, nonphysical reality, neither classical nor quantum-mechanical, neither a phenomenon nor an epiphenomenon, which exists entirely by itself. It is self-sufficient, is absolute, and does not depend on anything else for its existence. (You'll see that I sometimes refer to it as "pure Consciousness" to emphasize that it is unmixed and unattached to anything but itself.)

Consciousness is the ultimate singularity, knowing itself by means of itself without any outside agency or medium such as a human nervous system. While remaining a singularity (oneness, totality, wholeness), Consciousness has inherent within its nature the three roles of observer, observing, and observed. How is this so? Simply because we are talking about Consciousness, which of course is conscious, and being conscious must involve these three values:

- Someone (or something) who is the subject — the conscious observer
- An object of consciousness — the entity that the observer is conscious of (or thing that is being observed)
- A process of observation that links the observer and the observed

And because Consciousness is singularity, there is nothing but Consciousness looking at itself. Thus, the observer is the process of observation and is also the observed.

Because Consciousness is primary, we don't have to worry about solving the hard problem of how the physical nervous system creates consciousness — it doesn't. Nor need we worry about how Consciousness creates anything physical outside itself — it doesn't do that either. Rather, all the physical and material aspects of the manifest universe are modes of Consciousness. They are expressions or aspects of Consciousness itself — appearances within Consciousness.

In short, I am considering Consciousness as the stuff from and in which everything is conceived to exist. Just as a wooden chair, a wooden table, and a wooden house are all different but are all made of wood, all objects, subjects, and processes in the universe differ on their surface levels but are all conceived out of Consciousness.

The simple hard solution

It could be argued that I have traded one hard problem for another. How does the material universe arise from an abstract immaterial consciousness?

The answer is what I will call *the simple hard solution*. It's hard because it's difficult for us humans to accept that what we trust most, our senses — "seeing is believing" — is deceptive. Indeed, this solution highlights the often misleading, ever-changing nature of human sensory perception. It recognizes that what appears most abstract — consciousness — is the most real, and that what appears most palpable — the stuff of the physical world — is the most illusory.

This is just one step beyond what physics tells us today about the structure of nature: concrete and localized on the surface but built up of nonlocal fields and probability waves in the depths.

I'm not putting forward a metaphysical notion about a hypothetical pre-big-bang reality where Consciousness existed alone and all it could do was observe itself. That's an interesting idea and may be true, but that's not the point. I'm suggesting that right now, at any time and in any place, Consciousness is all there is, and everything that appears to exist is only and always a play of Consciousness.

This is not to say that objects do not exist. I'm proposing that objects *do not exist independently*, because the observer at any moment is always inextricably connected to the observed and the process of observation.

But if Consciousness is all there is, how is it that there are also cars and jets, people, planets, and universes? They are real. If I fall, I hurt myself. If I do something hurtful, the reaction comes back and I feel the pain of it. These are absolutely real things. How does the unbounded reality of pure Consciousness — pure Being — play this game of appearing as the reality we experience? If Consciousness is all there is, how does physicalness emerge or appear to emerge?

From physics we understand that all objects are built up of less concrete entities (cells, molecules, atoms, quarks, etc.), each level an expression of the underlying level. The subtlest or smallest level we know, the Planck scale, is unimaginably microscopic. It takes 10 trillion trillion Planck lengths to equal the length of a single hydrogen atom. The smallest particle, the electron, is about 10^{20} times larger than the Planck scale, equivalent to the difference between a single hair and a large galaxy. And Consciousness is even subtler than that.

Consciousness is the most intimate fact of our existence. The one thing we know with certainty is that we are conscious. This points back to Descartes's

thought experiment that led him to conclude, *cogito ergo sum* — “I think, therefore I am” — perhaps better interpreted as “I am conscious, therefore I am.”* Similarly, the one thing we can know and be sure about is our own personal consciousness, our certainty of being and being aware.

But Descartes held that mind and matter are two separate things. I am proposing something different — that there is only one kind of ultimate “substance” and that is Consciousness.

Our senses perceive multiplicity, but Consciousness is singularity. This is the hard part of the theory I am proposing. We see people, hear birdsong, smell orchids, and feel warm sunshine. What we don’t see, hear, feel, taste, or smell is Consciousness itself, even though it’s the underlying reality of our lives, like a movie screen underlying the movie. This analogy may be helpful, but it fails enormously because Consciousness is also the projector and the content of what is being projected.

Descartes asks himself, “What is real?”

Descartes transcends and goes beyond thinking

If Consciousness is the fundamental reality, then is our sense perception woefully inadequate? This seems to be the case — our senses furnish only a partial glimpse of reality. Modern science, moreover, gives us models of nature that often contradict our sensory experience even as they provide more accurate pictures, repeatedly confirmed by experimental observation.

Perhaps the most notable example of this was the shift from an Earth-centered (geocentric) to a Sun-centered (heliocentric) view of the cosmos through the work of Copernicus, Kepler, and Galileo. The heliocentric Copernican model posed a hard problem in the sixteenth and seventeenth centuries. It opposed what people had been taught and what they experienced daily, that Earth was the center of the universe.

Those brave and innovative scientists caused an uproar. Copernicus was well aware of the challenge his discoveries posed to conventional thinking. He wrote:

> [T]o ascribe movement to the Earth must indeed seem an absurd performance on my part to those who know that many centuries have consented to the establishment of the contrary judgment, namely that the Earth is placed immovably as the central point in the middle of the Universe. . . .[3]

He worried that when he presented his findings, "I should at once be hissed off the stage." He published his research nonetheless, for his aim, he said, was "to seek truth in all things as far as God has permitted human reason so to do. . . ."[4]

Some proponents of the newfangled ideas faced only criticism or ridicule. Others faced more dire consequences. Giordano Bruno, the brilliant astronomer and philosopher, was executed for his beliefs, including his embrace of the Copernican heliocentric model. An elderly Galileo was brought before the Inquisition and, though spared execution (he was a friend of the Pope), was sentenced to house arrest for the remainder of his life. Such stories are not uncommon in the history of science. Advancing the cause of knowledge has never been easy.

Like the Copernican model, other scientific revelations have been equally counterintuitive and hard to accept. Relativity theory, quantum mechanics, quantum field theory, and cosmology have radically changed our beliefs about the nature of matter and physical phenomena.

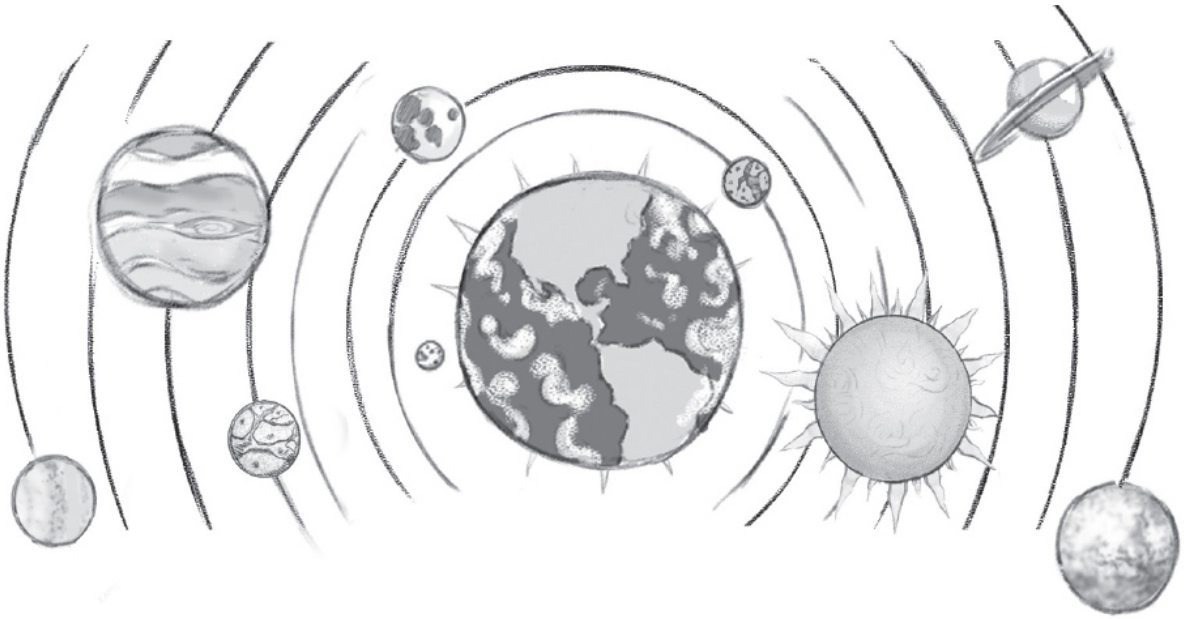
In relativity theory, Albert Einstein began by saying something inconceivable: space and time are related and are both relative. According to this theory, the perceptions we most trust — that we stand on solid ground, that time goes by the ticking of the clock — are not fixed and absolute but

relative. If we were to travel at the speed of light or close to it, time would stop and we would not age. Space, too, would completely change — depending on our speed, it would either dilate or contract.

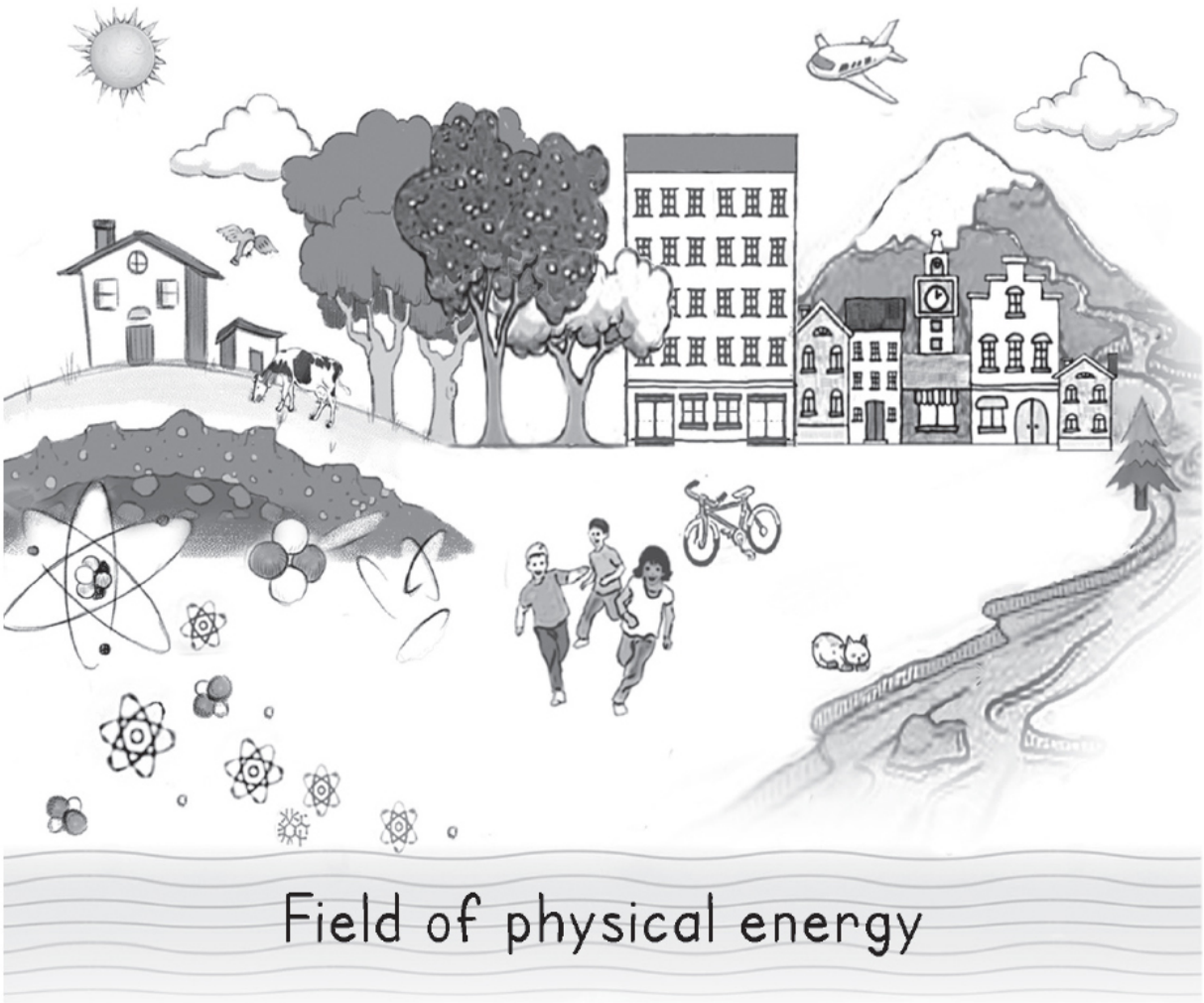
So what is the true reality? Not the familiar, tangible world we grew up believing in. Quantum physics tells us that our senses convey only a vague, illusory idea of reality. It reveals a fundamental aspect of nature where a particle is not localized, not confined to a single place, but has a probability to be anywhere — collapsing to a particular point in space and time only when we observe or measure it. Since we are made of particles, does this mean we also are potentially in every part of space and that we collapse somewhere only when we are observed?

Following pages – The physicalist worldview holds that the ultimate reality is physical energy and physical forces and nothing exists except physical matter. Most radically, physicalism concludes that consciousness is somehow physical or doesn't exist at all. The Consciousness paradigm offers a more comprehensive understanding, recognizing that everything, including matter, is made of nonphysical Consciousness. This view offers a more inclusive and complete understanding of reality and explains how to harness immense possibilities of Consciousness for the good of everyone and everything.

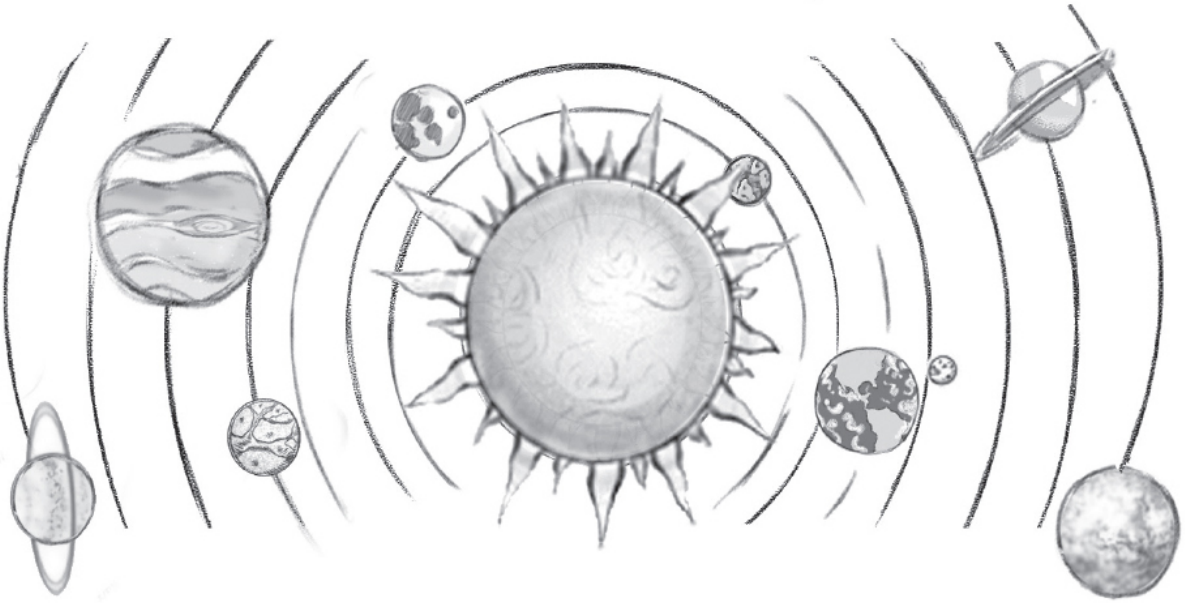
Old paradigms: Geocentric paradigm



Old paradigms: Physicalist paradigm



New paradigms: Heliocentric paradigm



New paradigms: Consciousness paradigm

There's a widespread common-sense belief that "if you can't measure it, it isn't real." But we must ask: Real in what way? And using what measuring device and criteria? Is the love you feel for your partner and children real? How about your affection for your dog or cat, or your enjoyment of a favorite song? Yes, surely. They're just not physical or material, not measurable on a scale.

Yet the belief that only the physical is real has colored and clouded our understanding and diminished our appreciation of life, undermining much that we cherish. Beauty, love, justice, wisdom — all are nonphysical. All take place only within Consciousness. Although these values have inspired and guided humanity for millennia, some scientists argue that they are unreal because we cannot touch, quantify, or explain them. This view is called *scientism*, a belief system opposed to the open and nondogmatic spirit of authentic scientific inquiry.

Observation and assumption

When something is labeled illogical, it's automatically doubted. In many cases, however, the original assumptions are wrong.

Is it logical, for example, that something can be present in several places at the same time? That the same event happened yesterday for Mary but will happen tomorrow for her neighbor John down the street? The common-sense answer is no. These are not logical possibilities in a worldview that assumes that objects and events are localized in time and space, and that time and space are absolute references.

However, all quantum calculations (which have been theoretically demonstrated and empirically confirmed) indicate that particles are not local until observed or measured and can therefore be in different places at the same time.

Let's do an exercise that demonstrates how the principles of Einsteinian relativity of space and time — literally and precisely interpreted — can lead to seriously challenging questions.

Imagine that John, Mary, and Jane are in New York City and wish to board the same bus at the same place at noon on a Monday. Mary arrives early and is already standing at the bus stop. John is arriving late, coming from Manhattan's East Side. Jane is on the same street as John and is also running late but is coming from the West Side. It is almost noon as John and Jane

move steadily toward the bus stop. As both John and Jane approach the bus stop, a local church bell rings: it is exactly noon.

On a remote planet three million light-years away, the inhabitants (or aliens to Mary, Jane, and John) are having an election.

Mary says, “The polls have just closed. The aliens are waiting for the election results.”

John says, “The aliens have not even started voting. The vote will happen in two days.”

Jane says, “The election was over two days ago, and the new president has already issued several executive orders.”

By Einstein’s theory of relativity, Jane, John, and Mary are all correct. Relativity says that they would disagree about what is happening right now three million light-years away and yet all their statements would be correct.

We tend to think that a given event is the same for all observers. But depending on your frame of reference — how fast you’re moving and in what direction — an event taking place for you right now will have already happened in the past for someone else or will happen in the future for another. Nor is this true only for those moving at high speeds. For Mary, John, and Jane, even a difference in orientation at walking speed contributes over a minor cosmic scale to several days’ difference in the timing of events (three million light-years is minuscule in the expanding universe).*

This is multiplied by many factors at higher speeds and greater distances. Somewhere in the universe, billions of years away from us, it is still the nineteenth century on Earth, while elsewhere Earth has reached the twenty-second century. For some, our great-grandfathers have not yet been born; for others, our great-grandchildren are getting married. While this is not significant for our day-to-day life on Earth, it raises profound questions about time — present, past, and future — and about space, freedom, determinism, and the fabrics of reality as we experience them through our senses.

The first reaction to such weirdness is to doubt it, to call it crazy. We doubt it because we think we know how space and time work, based on our daily sensory experiences. Certain that space and time are fixed, we refuse the conclusions to which logic and mathematical calculations lead us. We forget that it’s not the logic that is faulty but our original assumptions. The contemporaries of Copernicus, Kepler, and Galileo simply could not conceive that Earth was revolving around the Sun; every day their eyes and beliefs told them the opposite.

Appearance versus reality

Thoughtful people have always noticed that there is more to life than what appears on the surface, “more than meets the eye.” “Don’t judge a book by its cover,” we’ve been advised, because “appearances can be deceiving.” This is common sense. It’s also about the drive in science and philosophy to probe beyond the surface in the quest for truth.

What is appearance and what is reality? We’ve seen that our senses deceive us, and there are many other examples. The world we generally take to be real is only one version of the world, the one our senses and minds allow us to experience, and that experience is different for every single human being.

As Erwin Schrödinger stated, “Every man’s world picture is and always remains a construct of his mind and cannot be proved to have any other existence.”[5]

We are stuck within the limitations of our senses. They can deliver impressions only within the range they were designed to recognize.

Consider that our eyes can perceive only in the rather narrow frequency range roughly between 430,000 and 770,000 gigahertz. Above and below those limits are the ultraviolet and infrared wavelengths that we are forever barred from directly perceiving. Similarly, we know that dogs can hear frequencies much higher than anything we can hear, and that their sense of smell is estimated to be as much as 100,000 times more sensitive and acute than ours.

What if our nervous systems worked so that we could see the entire spectrum of the electromagnetic field? Then, all the space around us that now seems empty would be full. It could even become opaque because of all the waves filling it, including radio waves, microwaves, infrared, ultraviolet, and so on. If we could see all these waves, our sense of sight would be flooded. If our ears could hear radio frequencies and tune in, we would not need radios to hear broadcast music.

There are worlds and levels of reality beyond our usual and well-accustomed comfort zone, due directly to the inherent limitations of our sensory mechanisms. Is this so strange?

Harvard psychologist Steven Pinker wrote:

> Just as animal brains have their limitations, we have ours. Our brains can’t hold a hundred numbers in memory, can’t visualize seven-dimensional space and perhaps can’t intuitively grasp why neural information processing observed from the outside should give rise to subjective experience on the inside.[6]

Like our sensory apparatus, our minds are similarly circumscribed by many factors. There are Immanuel Kant's categories of time and space, existence and nonexistence, possibility, necessity, quantity (including unity, plurality, totality), and several others in terms of which we perceive and evaluate the world. These are universal factors that apply to everyone.

And then there are the individual considerations that vary from person to person: our education and native intellectual acuity; what we've studied, what we believe we know, what we understand. A mathematician looking at an equation sees something entirely different from what a non-mathematician sees; an artist viewing a painting sees color, composition, and technique in ways that people untrained in art might not begin to grasp.

Closely related to this are our level of consciousness — ranging anywhere from dull fatigue through various shades of wakefulness to a unified vision — and our beliefs, such as what we think is possible or impossible. And there are the "glasses" we wear, our socially or culturally conditioned perspectives, such as a materialist worldview or a religious belief.

All these are aspects of consciousness that largely determine what reality we inhabit. They beg the question: What is real? Or even, whose reality is the real one? In the physical world, everything is always changing, and we are ever constrained by our limited mechanisms of perception. If we cannot have confidence in our perceptions, and if everyone's take on the world is individual, then what can we trust? Closer to home: Who are we? Who am I?

The answer to this last question seems obvious: I am me, the same as I've always been. At least that's how it feels. But our bodies have changed enormously since we were children, and they are changing all the time. You were once a little girl or boy and then you grew up. It's a different body now, with a different structure.

And just as your body has changed, so has your role in life changed. At one time your job was to play and be happy. Then came school, then a job or a career path, and then falling in love and having a family, or perhaps you chose another, less traditional mode of life. Your interests too have evolved, and so have your ideas and the way you choose to spend your time and focus your attention. The concerns of a student or a child at play may have glided seamlessly into the concerns of a parent or an employer.

Who among all these is the real you?

Such an analysis becomes more interesting if you consider your body from the standpoint of physics. There is the outwardly visible form and all the associated organs and physiological functions, but a moment's thought

reveals that all this is made of atoms, subatomic particles, and lots and lots of space. Where is the *you* in all that?

And yet, through it all, although not a single atom might remain from the body you had ten or twenty years ago, you still have your sense of self, that *I am*. Only your consciousness remains with you, it seems — only your consciousness is permanent, is you, is your self. How is it that we maintain that unified sense of self throughout life, while everything else undergoes ceaseless change — our friendships and loves, our jobs and interests, our gains and losses? I hope you can now see that the thing closest to us — what we know best and can most rely on — is our consciousness.

From the material and physical perspectives, we experience the manifest universe as made of objects — houses, trees, animals, people, planets. What are they? Where do they come from? Modern science tries to answer these questions, to discover the basic constituents of all objects, their source, and what makes them assemble to form complex, intelligent entities such as human beings and societies.

In the next chapter, we'll examine scientific discoveries that shed light on the building blocks of the manifest universe: energy and matter. This will take us further into physics. It's not essential to understand physics to understand the Consciousness paradigm. But if you're scientifically minded, I hope you will see that recent discoveries in physics strongly support the paradigm I'm proposing. In modern physics, mind and matter ultimately converge.

I've changed but I'm still the same person . . .

We look at photos of ourselves at different times of our lives and see how our bodies, roles, relationships, responsibilities, and every other outer value has changed. And we know that not a single atom might remain today from the body we had years ago. Yet we also know that we haven't changed. We know — we feel — that we are the same person we've always been. So we ask ourselves, what is it that hasn't changed? Who am I, really? There must be something about me that's permanent, never changing. That permanent sense of self is our consciousness. That, ultimately, is who and what we are.

* Descartes's phrase was originally published as *je pense, donc je suis*.

* For scientifically minded readers, Appendix C gives a technical explication of the Mary–John–Jane scenario.

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CHAPTER 5

MODERN SCIENCE AND THE PHYSICALIST PERSPECTIVE

How can we begin to reconcile what our senses tell us about our physical world with what we know we actually are — Consciousness? To answer this, let's first explore our physical world more deeply and see if we can harmonize the deterministic reality of the macroscopic classical world with the randomness of the microscopic quantum world that underlies it.

Classical reality

If you divide any object into smaller and smaller pieces, you might think you'd eventually reach a point where it can't be divided further. About twenty-two hundred years ago, the Greek philosophers Leucippus and Democritus had the same idea. They imagined that everything in the universe is composed of microscopic indivisible particles of matter they called *atoms*.

As we saw earlier, other Greek philosophers of that time thought that reality was one and indivisible and that all else was an illusion. Accordingly, Democritus was ridiculed by other philosophers. If there were basic constituents of matter, what would be between those constituents? Empty space and therefore nothing? But how can nothing exist? For them this was patently obvious: nothing cannot exist; otherwise, it would be something.

But the atomic idea — the concept of elementary particles — returned many centuries later and became important in science. About two hundred years ago, John Dalton revived the idea of Democritus, stating that matter is made of tiny indivisible particles called atoms. (As we will see later, with

recent advances in physics the opponents of Democritus and Dalton may again have gained ground for their point of view.)

Some hundred years after Dalton, J.J. Thomson, a physicist working with cathode rays, came to suspect that even tinier particles make up atoms. The first such subatomic particle to be discovered was the electron, followed later by protons and neutrons, which would turn out to be made of even smaller elementary particles.

A landmark in our understanding of how objects interact with each other came in the late seventeenth century, when Sir Isaac Newton formulated the laws of motion and showed that gravity acts at a distance, explaining why apples fall to the ground and defining mathematically the attraction between different masses, including planets and stars. This was the beginning of what is now called classical mechanics. It was measurable, reliable, and also revolutionary, and at the time very baffling. What connects the apple to the ground and the Moon to Earth? Why do these forces behave as if there were some action at a distance?

Fields of energy

About a hundred years after Newton, the brilliant French polymath Pierre-Simon Laplace expanded Newton's law of gravitational force to a model in which gravity is a radiation field or fluid, and changes in the motions of bodies within that field are transmitted by waves.

Then Faraday and Maxwell formulated the modern idea of the field. As I've already discussed, this led to understanding the nature of electrical and magnetic phenomena in terms of a single underlying field: the electromagnetic field.

For a sense of what a field is like, think of a topographical map showing the elevations of a terrain, with high areas (hills and mountains) and low areas (gorges and valleys). Or, to employ a more three-dimensional model, imagine you were to plot the temperature at every point in a room with a hot stove in the corner. Each point will have its temperature, with the temperatures nearer the stove higher than at other places (theoretically, anyway, as air currents would also affect this dynamic). We can call this a field of temperature, although this is just an analogy and technically speaking it is not a typical field. Gravity and electromagnetism are typical fields. Their strength varies in different places.

Quantum fields

With further exploration, the equivalence between matter and energy became clear, and physicists discovered that nature uses tiny, discrete quantities of energy (quanta) rather than a continuous spectrum. They found that most elementary particles do not strictly obey the laws of classical physics. Their behavior (mechanics) needed new equations to explain how nature functioned on these very small scales. Classical Newtonian mechanics thus led to quantum mechanics. With growing understanding, physicists realized that elementary particles are not classical point-like particles, that they have a peculiar nature: they are spread out.

Recall the topographical map and the temperature map. If you're looking for elevation (typically measured above or below sea level), the topographical map will tell you where you can expect it to be higher or lower. If you're looking for heat in the room, the temperature map will lead you to the hot stove.

This brings us to the *wave function* of a particle. The wave function is like the topographical map or the temperature map, except that instead of representing elevation or temperature it represents the particle itself. The wave function is a plot showing where the particle can be. Because we are used to thinking that a particle is localized in time and space, it takes some imagination to accept that the particle is, in fact, spread out like a cloud.

The field of the particle can theoretically be spread throughout space. But it doesn't spread equally. In the temperature map, heat is higher in some areas than in others. Likewise, the wave function shows that the probability of where the particle might be found is higher in some places and lower in others.

In our temperature example, suppose there is a creature that can only detect temperatures as high or higher than that of the hot stove. When in the room, this creature will experience heat present on or in the stove. But the creature cannot become aware that different degrees of heat exist throughout the room because it is simply not able to detect heat lower than that of the hot stove.

The human condition — our senses of touch, sight, smell, taste, and hearing as well as our awareness of space and time — allow us to detect things only within certain ranges. Also, our nervous system can have an experience only when it is excited in a specific way at a specific place;

therefore, an elementary particle, or for that matter any object of experience, must be localized in space and time for us to observe or measure it.

But quantum theory tells us that the elementary particle is spread out in a way similar to the heat in the room. Physicists assume that our observation — our measurement of the particle — is possible because of what they call the collapse of the wave function. This means that, with our observation, the particle suddenly collects itself in one spot in space and time, and the probability of finding it in a different place becomes zero. The particle is here now and not anywhere else.

In our Consciousness paradigm, there is no collapse of the wave function. As we'll see later, the particle remains virtual and the probability of finding it in different places remains the same as described by its wave function. But, like the creature that can detect only a certain degree of heat, we decide that the particle is only where our human limitations and circumstances allow us to see it at any given moment. An elementary particle's fundamental reality (or, for that matter, the reality of any object) remains spread out, but we calculate and declare, "It is here now!" — like the creature in our example saying, "Heat is only at the stove!"

Unification of fields

The forces of nature and the various constituents of matter — the elementary particles — understood in terms of underlying quantum fields can be described by an analogous mathematical formalism. This made it possible theoretically to unify the different fields, and physics progressed from quantum mechanics to quantum field theory and, even more fundamentally, to unified field theories.

Based on rigorous observations and calculations, most physicists believe everything in our universe is interconnected. They use the term *entangled*. Extending the concept of the wave function to the ultimate limit in quantum cosmology gives rise to the wave function of the universe, highlighting the ultimate interconnectedness and interdependence of everything with everything else.

How has all this sprouted?

Our universe is assumed to have emerged about fourteen billion years ago in a big bang, when an almost infinitely compressed state of matter with nearly infinite energy density and correspondingly extreme high temperature expanded very rapidly. From the classical perspective, the initial state of the universe might be conceived as a point-like singularity with infinite energy.

However, advances in quantum cosmology and unified quantum field theories — in particular, superstring theory and M-theory — point to a more detailed and somewhat different understanding of the first moments of the creation of the universe. Quantum gravity implies that the classical space-time concept breaks down at the Planck scale (10^{-33} cm and 10^{-43} seconds).*

This means that the universe can't have emerged from an actual point, that we can't speak of a point in time when the universe was created — assuming it had a beginning at all. What might have come *before* the big bang is a matter of conjecture.

Physicists have studied many scenarios of how the universe could have been created. Today, two categories of cosmological models are widely accepted. The first category (inflationary models) assume the universe exploded in an extremely short time. The second category (the ekpyrotic cyclic model) assumes a previous universe existed before our universe began.

Which category is correct? The answer has far-reaching philosophical implications. In the inflationary models, time emerged with the creation of the universe, and all matter was created only after the universe expanded by at least a factor of 10^{30}. The ekpyrotic cyclic model requires that time existed before the creation of the present universe whereas matter was created at its very beginning.

Many inflationary models now assume the existence of a multiverse with spatial separation of regions within the original universe. Each of these regions explodes in an inflationary phase to form a universe that cannot be reached by the neighboring universes. Another idea of a multiverse is provided by the many-worlds interpretation of quantum theory. In this model, each universe of the multiverse originates through countless successive branchings occurring in quantum measurement processes. In both scenarios, the multiverse originates from one single universe. A third idea conceives of a more abstract kind of multiverse in which an

undifferentiated quantum reality expresses itself in an infinite manner and thereby gives rise to infinite universes.

From a certain point on, the evolution of the universe is basically the same for all these different cosmological scenarios. As time progresses and the universe cools, most of the matter and antimatter particles, as well as particles associated with force fields, disappear in particle-annihilation processes. What remains is a fraction of matter particles and a cosmic background radiation from the surviving photons.

Evolution and the human mind

As the temperature of the universe drops further, the elementary particles assemble into more complex atoms, then molecules, organic matter, primitive forms of life, cells, tissues, organs, organisms, and eventually humans. The human mind and consciousness are assumed to have emerged from this orderly and presumably physical complexity.

In this materialistic view, it's assumed that the mind is an emergent property determined by the nervous system. Complex processes in the brain and physiology give rise to consciousness, thought, and behavior. It stands to reason, then, that psychology can be explained by biology, biology by chemistry (the chemical activity underlying cells, tissues, and organs), and chemistry by physics (how atoms and molecules behave according to strict physical laws).

By extrapolation, physics, chemistry, biology, psychology, and even sociology must follow strict physical laws, and all individual and social behavior must be strictly determined. If the original conditions are set, all results must be precisely predictable. Action outside the immutable laws of nature is impossible.

From a materialistic and classical physics perspective, determinism is difficult to refute. There is no place for freedom in the physical realm, and neither in the psychological and sociological realms, which derive from the physical.

But what happens as physical systems become more complex? When, for example, molecules and cells emerge from collections of simple mineral and organic components, or humans emerge from complex collections of cells? It turns out that these emerging entities are more than just the

mechanistic sum of their parts. Complex systems display novel properties that cannot be explained by the properties of their components.

Atoms, molecules, cells, tissues, and organs do not have humanlike consciousness. But humans do — consciousness is a novel phenomenon emerging from these components. Such emergent novel properties may not be entirely subject to the basic physical laws governing the parts that compose them — they may be subject to laws outside the physical laws considered in the materialist paradigm.

As long as there are physical laws of nature, it's difficult to argue for freedom. To do so, we must assume that the emerging properties include the ability to escape from these laws. Otherwise, in an orderly universe, the rule of cause and effect applies strictly and determinism is unavoidable. To be truly free, we must be able to escape mechanistic cause and effect and make choices seemingly out of nowhere. This bewilders science. In a classical, orderly universe, it doesn't make sense.

Order and randomness

But there's a catch. Physicists didn't stop at the molecular and atomic levels. Probing beyond molecules and atoms, they discovered a reality entirely different from classical physics. They found that elementary particles — those that make up atoms, for example — display *randomness.* They show uncertainty or unpredictability in their behavior. Left to themselves, they do not behave as classical theories predict. They are in no way predetermined.

For example, physicists discovered that a quantum particle can exist simultaneously at an infinite number of points in space — it can be *delocalized*. It can also exist simultaneously in several or even an infinite number of states — the principle of superposition. Any possibility could manifest with no way to predict it — it happens randomly.

Does randomness mean chaos? If everything were utterly random, no complex structure would emerge — no trees, animals, humans, societies.

If the most elementary particles display random behavior, how do we have strict laws of nature at the more complex levels of atoms, molecules, cells, organs, and living species?

The quantum level — despite the random behavior of elementary particles — also displays orderly patterns of behavior that express

themselves at the classical level.

When many electrons are fired through two narrow slits and hit a photosensitive screen, they create an orderly wavelike pattern of light and dark stripes. This so-called “diffraction” or “interference” pattern is caused by alternate stripes of higher and lower concentrations of electrons impinging on the screen. Quantum theory clearly predicts this. It doesn’t matter whether we shoot the electrons all at once or one at a time over a period of months.

We can’t predict where any individual electron will impinge on the screen — we can only assign probabilities as to where the electrons are likely to impinge. In other words, quantum theory gives a clear law for the *collective* behavior of quantum particles but allows a great degree of randomness for individual particles.

At our classical macroscopic level, we deal with collections of particles, so this gives us a first idea about why at the classical level nature appears deterministic. But this is not the whole story.

Once we’ve observed a particle’s position — once it’s become localized at a specific spot — it takes time to become delocalized again, and that time increases significantly with its mass. An electron gets delocalized more quickly than a dust particle, a dust particle more quickly than an orange.

As we’ve discussed, in the quantum world particles are not always in one specific place; they exist in a fuzzy state that is spread out over an area. However, when particles interact with each other, they snap into a more defined position. We could say that a measurement situation has been created that localizes them. A large object — an orange, for example — is continuously interacting with countless other particles around it, such as air molecules and the protons of sunlight. These constant interactions serve to pin down the orange’s location very precisely, preventing any fuzziness in its position.

So, in simple terms, while tiny particles can be fuzzy in their location, big objects are almost always pinned down due to their constant interactions with the environment. A large object has a far higher rate of interaction with air molecules and photons from the Sun than do elementary particles, and therefore any tendency of delocalization of large classical objects is immediately counteracted by their interactions with myriads of such particles. This is why we can accurately predict the position of an orange on a table if we apply a force to it. The orange follows Newton’s classical

mechanics: if you throw it in the air, we can precisely define its trajectory. Nonetheless, all objects are made of elementary particles, and each particle is associated with a wave function or a more generalized mixed quantum state with a much larger number of possibilities.

Entanglement

A most remarkable feature of quantum theory is entanglement. With entanglement, two or more quantum particles can occupy a holistic quantum state, correlated such that we can't assign separate quantum states to individual particles independently of the overall state. Entanglement holds even when particles become distantly separated and no longer interact. Once they have interacted or become connected, they may remain connected in unexpected ways.

Entanglement is not mediated by the physical forces and chemical bonds that connect particles, atoms, and molecules. In the Consciousness paradigm, everything is connected with everything and influences everything. I will use the term *entanglement* in a more expanded way, to signify the interconnectedness of every aspect of manifestation.

Quantum effects have practical applications

Quantum effects are very real; they are not just some fancy theoretical mathematics. They have applications in lasers, transistors, integrated circuits, and advanced medical imaging, to name but a few. These applications have profoundly changed how we live. Without transistors and integrated circuits there would be no personal computers. And think of what computers and the internet have done.

Entanglement has been demonstrated over and over again in the laboratory and has been used to quantum teleport atoms over large distances. Quantum tunneling operates in nuclear fusion in the Sun, in radioactive decay, and in biology. Electron tunneling is a key factor in photosynthesis and cellular respiration as well as in many biochemical reduction/oxidation reactions and in enzymatic catalysis. Proton tunneling is instrumental in the spontaneous mutation of DNA.

Development of quantum computers using the principles of quantum superposition and entanglement is already well advanced and may open

completely new perspectives in computer technology and artificial intelligence.

Two aspects of reality

Thus far we have discussed two aspects of reality that are quite different: the classical and the quantum mechanical. The classical (the more experiential or observable) is well defined, follows strict laws, is precisely predictable at our human scale of space and time, and is continuous. It is like climbing a hill on a smooth continuous ramp. The quantum mechanical, on the other hand, is discrete or quantized, like using steps on a staircase. On the classical slope you can be at any incremental level from the lowest to the highest, but on the quantum staircase you can only be at discrete levels of height and never between those levels. In quantum mechanics, there are phenomena in which nature displays either discreteness or a continuity that gets essentially disrupted, these being very different in their natures.

Einstein discovered and described his theories of relativity within the context of classical physics. Relativity is unusual, to say the least, in that it is not immediately intuitive, yet it explains how space and time are interrelated.

For example, time dilates and space contracts with increased speed. This means that when an observer (let us call him John) looks at a clock and a yardstick attached to a spaceship that flies by at an extremely high speed, John will perceive the clock to be running slower than his own watch and will also perceive the yardstick to be shorter than his own yardstick. Conversely, an astronaut riding in that speeding spaceship would observe John’s watch to be running slower than the spaceship’s clock and John’s yardstick to be shorter than the spaceship’s yardstick. One individual might experience more space and less time, and the other more time and less space. However, when they factor both space and time together, they will agree on the combined space-time.

Thus, these unusual, counterintuitive, relativistic phenomena operate reasonably well within the realm of classical physics, particularly when compared to quantum mechanics, which is much weirder. This is because the quantum mechanical reality is a field of uncertainty, randomness, and

mere probability that, in some of its aspects, goes beyond the limitations of space and time and is quantized.

Local realism, decoherence, and the wave function and its collapse

Niels Bohr was a contemporary of Einstein and one of the founding fathers (together with Werner Heisenberg and Max Born) of the so-called Copenhagen interpretation of quantum mechanics, a prominent approach to understanding the unusual quantum world. It describes how an observation or measurement collapses the wave function.

Another interpretation of quantum mechanics, the von Neumann–Wigner interpretation, was initially formulated in 1932 by the renowned mathematician John von Neumann. It goes one step further, holding that the observer's consciousness causes the wave function to collapse.

The question was whether, as Einstein believed, the objective reality is independent of the observer (realism) or, as von Neumann and Eugene Wigner suggested, the consciousness of the observer causes the collapse of the wave function, meaning observers create their own reality.

In any case, whether one favors the Copenhagen or von Neumann–Wigner interpretation (or a third — the many-worlds interpretation, which we'll discuss in a moment), it's clear that if quantum mechanics is correct — and from all we know, this seems to be true — then an observation or measurement process *does* something to the object of observation. Essentially, it seems to collapse the wave function in the observer's universe, and what was uncertain because of probability becomes localized in space-time for that observer.

Einstein searched to the end of his life for a deterministic theory that could explain quantum phenomena yet comply with his special and general relativity. He struggled with the findings suggesting there is no objective physical reality other than what is revealed through measurement. He never accepted the idea of entanglement (nonlocality), which he called "spooky action at a distance."

Since Einstein, many experiments clearly indicate that the local realism concept is false and support the view of quantum physicists. It is important to emphasize that violation of realism in the sense used in quantum physics means that actual, definite properties of a physical system "do not exist"

prior to the measurement, or, expressed differently, the result of a possible measurement “does not exist” before the act of measuring it.

The quantum level is random and unpredictable. Theoretically, events at this level could influence the process of cause and effect, and from the narrow perspective of an individual particle it could seem as if there were randomness rather than law and order. The universe might seem to be built on a fundamental indeterminacy amid an ever-present potential for chaos.

But the picture changes when seen from the perspective of large collectives of particles rather than individual atoms and tiny molecules or from the perspective of a whole history of events along the timeline of all existence. That is, while individual particles may behave randomly, as a group they behave more predictably.

Particles in a group behave within specific boundaries and rules, such as probability distributions, and they follow those probabilities accurately. For example, an individual radioactive isotope has a probability of decaying or not decaying within a very specific time window.

Take uranium-238, for example. It has a half-life of 4.47 billion years, which means that, in a group of such atoms, within 4.47 billion years half of those atoms will have decayed, thereby releasing radioactivity. During this time, any one of the atoms has a 50 percent chance of decaying and releasing harmful radiation.

If your life depended on whether one particular atom decays or not, you could be anxiously (and endlessly) waiting with a 50/50 chance of survival. The atom could decay in the next second, the next day, the next year, or not for billions of years: there would be no way to predict whether or when that particular atom would decay. We can say with relative certainty, however, that half of the atoms will have decayed in 4.47 billion years.

Stated differently, these numbers show that in one kilogram of uranium-238 you can count on about 12.4 million atoms decaying every second. You cannot tell which ones will decay but you can tell how many will — a juxtaposition of measurable predictability and unpredictable randomness.

Evolution, life, law, and order are not dependent on isolated individual atoms but on large numbers of entities, forces, and processes that are intermingled, and current science tells us that these are largely predictable. When we know that out of one kilogram of uranium more than twelve million atoms decay per second, this is generally accurate enough as far as life and living are concerned and so may be regarded as essentially

deterministic. It does not matter at all which specific atoms decay now and which will decay in ten billion years.

In the same way, we can understand the neuronal processes in our human brain, including neurotransmitter release and neuronal firing, which are intimately related to our cognitive thought processes and emotion-based feelings. They have an underlying, elementary, random quantum level with a potentially orderly classical level. Thus, on the more fundamental levels of our nervous system we have the predictable dynamics of interacting elementary particles, atoms, ions, and small molecules whose individual dynamics include a random component. While the random components of the velocity, spin, position, and other characteristics of the individual particles may not matter, what counts is whether in their togetherness they lead to purposeful, predictable collective dynamics.

Careful analysis of the different cosmological scenarios shows that quantum mechanical correlations or entanglement occurring in the primordial, fluctuating dynamics of the very early universe are what led from the basically random behavior of individual elementary particles to hierarchically ordered structures.

But this is not the whole story of how random dynamics at the quantum level are consistent with the orderly evolution of the complex structures of the universe. To understand the relationship between quantum dynamics and classical dynamics in the context of the time evolution of the universe from its beginning to the present and into the future, we need a more extended interpretation of quantum theory, one beyond the Copenhagen interpretation.

In the early universe, as well as in remote intergalactic regions, there are no classical observers (that we know of), but the Copenhagen interpretation requires a measurement apparatus, or an observer, as described by classical laws. Also, describing the entire universe as a quantum system does not allow an observer outside the universe to observe the universe — in technical terms, the universe as a whole is a closed system. Therefore, one needs an interpretation of quantum mechanics that allows more generalized measurement situations; in short, one needs to generalize the concept of observation.

Moreover, when dealing with the whole universe, this concept must be in accordance with Einstein’s theory of relativity, which means one cannot use Newton’s concept of absolute time. However, in the Copenhagen

interpretation, probabilities are predicted for observations at one moment of time. Also, the focus of the Copenhagen interpretation is on laboratory experiments where one performs just one or a limited number of consecutive experiments. But an infinite number of quantum events occurred all across the universe during the billions of years of cosmological evolution.

At present, the only conceivable and widely explored interpretation of quantum theory that deals holistically with this is provided by the *decoherent histories interpretation*, also called the *consistent histories interpretation*, introduced by the physicists Robert Griffiths, Roland Omnès, Murray Gell-Mann, and James Hartle.[1] The decoherent histories interpretation focuses on probabilities for sequences of events where each event represents a quantum measurement or a more generalized measurement situation.

In a quantum measurement process in ordinary quantum mechanics, the object of observation and the measurement apparatus, or observer, enter briefly into a state of quantum mechanical correlation or entanglement. Due to interaction with the environment, this state differentiates into various potential outcomes upon observation. In technical terms, the temporary state of quantum mechanical correlation decoheres into a statistical mixture of possible outcomes. The potential states of the object of observation become correlated to the potential states of the measurement apparatus or observer. It's assumed that there is no collapse of the wave function but a branching of the universe into several universes. From the relative probabilities for different histories, one can then infer correlations between observers and events or properties of objects that are observed.

Many-worlds and the multiverse

The many-worlds interpretation of quantum theory says that if we observe or measure a quantum object's location, the object will manifest in many different places at the same time in parallel universes. If you observe an orange on your table, in another universe it's at your neighbor's house, and in yet another universe it's at some parking lot in town.

According to the many-worlds interpretation, in each case you would be seeing just one possibility out of many possibilities. With every new possibility, universes branch in endless numbers and ways.

Far-fetched? A good number of physicists favor it. It replaces the Copenhagen and von Neumann–Wigner interpretations, each of which says that the measurement collapses the wave function in a specific way.

Most important, the many-worlds hypothesis solves the puzzle of how randomness leads to orderliness. Randomness, in fact, leads to all kinds of possibilities with all kinds of probabilities, some of which can be orderly and one of which created our own universe.

Like bubbles in sparkling water, universes emerge from a timeless quantum reality. All possibilities, with all kinds of universes possessing all kinds of laws and physical constants, can theoretically emerge.

At the end of the day, we live in one of these universes and don't have to mind what other universes are like or if they exist at all (unless we are scientifically curious, as many of us are). It's also irrelevant whether the laws in our universe were conceived by a creator or are just random laws that came together out of myriad possibilities.

Nonetheless, on the surface level of its manifestation (atoms, molecules, minerals, organic matter, all living entities), our universe has strict laws and immutable constants. We conclude that everything obeys these laws. Yet we believe we have free will and think and act as if we're free to choose. Our laws and social customs, moreover, assume we have freedom of choice, which is why we reward positive and punish negative choices. In a later chapter, we will explore in some depth these questions of freedom, choice, and responsibility.

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* 10^{-33} equals to 0.000 … 0001 with 32 zeros between the decimal point and the 1.

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PART II

The Consciousness Paradigm

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CHAPTER 6

NO-THING: THE START OF EVERYTHING

In the last chapter, we looked closely at the physicalist view of modern science — that everything in the universe comes from energy, physical forces, and material objects. Is this fundamentally wrong? How could that be? It has given us so many useful technologies. But it is unproven. And at best it's partial: it cannot explain the most precious part of living — our own subjective experience.

I am proposing that there is a singularity that is Consciousness and that Consciousness is all there is. This means that the physical is *within* Consciousness. All the good that modern science does is, ultimately, due to Consciousness. And being so much more than the physical, Consciousness offers us another treasure: keep all the good that modern science does while ameliorating the serious problems the purely physicalist worldview has created. This is something we'll discuss later. For now, let's find out a lot more about the Consciousness paradigm.

The singularity that is Consciousness is nonphysical and nonmaterial. It is not a thing, nor is it composed of things; when considered from the material viewpoint, it is nothingness. But, as Consciousness, it is a self-aware, self-referral existence. It is not limited by any concept of space or time, and it cannot go anywhere, nor can it be the source of anything outside itself because there is nothing outside it. This Consciousness is absolute, non-changing, without beginning or end. If considered in terms of space and time, it is unbounded in space — infinite — and unbounded in time — eternal. By virtue of its nature as *no-thing*, it is beyond qualification and quantification. We cannot measure it — it is beyond beginning and end.

Now let's unpack that definition. First, as we've already seen, it is the nature of Consciousness to be conscious, and being conscious requires three

elements: an observer, an object, and an observing process that connects the two.

When you say, “I am conscious,” what do you mean? Conscious of what? You are aware of something, an external object perceived by your senses — perhaps a car, a book, a tree — or an internal object such as a thought, a feeling, or a sensation. You might even be aware of being aware. In the last case, Consciousness is at once the observer and the observed, the knower and the known. But in every case, there is the observer and something observed and some process, some mechanism by which the observation takes place, some mechanics of experience, something that links the observer and the observed. This three-in-one structure inheres in the very nature of Consciousness. It holds, no matter what the level, state, or quality of consciousness. Without these three roles, there would be no conscious experience.

In daily life, we commonly assume that we have a personal consciousness, and on the screen of this consciousness our experience takes place, as if the functioning of our nervous system creates an interior screen and objects are projected on this consciousness screen via cognitive mechanisms, like a cinema screen on which images are projected. But this is not an accurate description of what our consciousness is or of what happens during a moment of experience. Our consciousness is not a flat screen on which objects are projected.

Experiencing nothingness

Imagine that everything you know and do not know disappears. There is no you, no me, no anything (no matter, no energy, no particles, no forces, no physical universe, no physics, no chemistry, no biology) — just a primordial, pre-big-bang state of void: nothingness. No time, no space, no duality, no two or three, no concept of difference. Absolutely nothing.

You might wonder where this nothingness comes from. But we cannot ask this question because there’s nothing, no place from where it could have come. You can ask neither when it starts nor when it finishes because time and space are concepts related to objects and there are no objects. There is just nothing, nothingness without limit in space and time because there’s neither time nor space. You might ask: Who created this nothingness? But there’s nothing to create. You can’t even talk about existence and nonexistence or about life and death and immortality.

Yet, it is from this nothingness that we must derive the entire field of reality, including imagination and dreams, mobile phones, spaceships, cedar trees, whales, you, me, Newton, Napoleon, unicorns, aliens, Thor, Aphrodite — everything.

To start, let's see if we can have a glimpse of nothingness as an experience rather than only a mental concept (even though, because it is nothing, it cannot really be experienced!). We'll do a small experiment in which we at least want to experience nothingness. We'll do this with our eyes closed, once I've described what to do.

We want to experience what nothingness is like.

We want to experience nothingness, even if only for a fleeting moment, just to have some sense of what nothing at all can be like. (There must be silence on the level of sound and hearing and darkness on the level of light and seeing.)

If it's convenient, it would be best to sit comfortably. Without analyzing, without trying for anything, but with the simple intention to experience silence, experience nothing as you close your eyes. After a few seconds, open your eyes.

No rush — take your time.

Stop reading now.

Close your eyes and experience nothing. . . .

When your eyes were closed, you might have felt a shorter or longer moment of nothingness. Or maybe you had thoughts. Or maybe your attention was caught by some outside noise or by your own breathing or by a feeling in your body, interspersed with silence. Or maybe you felt that your mind was saying, *I do not have silence because I have thoughts and thoughts are not silence*. Yet, between two thoughts or two feelings or two perceptions, there was silence.

The experience could have been any combination of those I've just mentioned. But silence and nothingness were there, whether you felt that clearly or vaguely, for a short time or a longer time.

Even if you think nothingness was not there, when your mind moved from one thought to another the gap between the two thoughts was nothingness.

Why not try it again and see how it feels?

We do not try to create a void. Just have the idea before you close your eyes that you want to feel what nothingness is like. Have no anticipation, no expectation of what you will be thinking when you close your eyes.

Right after closing your eyes, silence might come, and then thoughts or feelings may invade the silence.

You might be saying to yourself, *I have a thought, so this is not silence*, or, *I feel my breathing, so this is not silence*. In both cases, you are intellectually analyzing silence as being the negation of any specific thought or feeling, and this also is correct.

Those who practice Transcendental Meditation might have experienced transcendence when their eyes were closed because they've developed that habit and will at some time in the past have experienced long periods of deep inner silence. To be clear on this point, *this little exercise is not a technique of self-development.* Certainly, it is not Transcendental Meditation. We did it just because direct experience helps with understanding.

We are talking about nothingness, and this exercise might have brought nothingness a bit closer to home rather than it remaining an abstract concept. Although some of us might not have had a clear experience of nothingness, even just a feeling of it may have helped us understand.

Set theory: nothingness in mathematics

Now let's turn to another way to help understand nothingness. One of the most successful theories in modern mathematics is set theory, based on the *empty set*. This theory starts with emptiness and defines a primary set containing nothing. To show that this set is empty, brackets are used: { }. Obviously, between the two brackets there is nothing. The image of two brackets with nothing between them denotes the empty set. If you put this empty set itself between brackets — {{}} — you have created a new set. This new set is not empty. It contains one thing: the empty set. And this goes on, emptiness within emptiness.

As bizarre as this might seem, it is one of the most useful theories in mathematics. On the physical level, there is nothing: the set is empty. But on a conceptual level, we are postulating a set. So, what is there is just a concept, and a concept is a work of consciousness. If you remove consciousness from the equation, you cannot do anything or build anything. One of the most successful mathematical theories requires the concept of emptiness as a starting point, and this is a work of consciousness.

Even geometry is built on nothing material. The nothingness in geometry is called a point. By definition, a point has no dimensions. It specifies a location, but it is not measurable. Having no dimensions literally means no

physical existence. Yet it is a concept in consciousness. Based on this concept in consciousness you build a line, which has only one dimension; a plane, which has two dimensions; and all space, which has three dimensions.

In these examples, we have built something from a nothingness that does not contain anything physical or material. And we have realized that nothingness is a concept requiring consciousness.

Consciousness is no-thing, yet it is everything

Now comes the second step in our theory. We put consciousness with nothingness and say that nothingness has a quality and that quality is consciousness. Having a quality does not mean that it has become some kind of thing in material or physical terms. It is just that the nature of this nothingness is consciousness. It is not a thing, yet we postulate that it is within this nothing, this not-a-thing-ness, that all things emerge: in Consciousness, all things emerge.

Nothingness as the source of everything is a theme expounded in Vedanta and the Upanishads, two important aspects of the Vedic literature. In the *Chandogya Upanishad*, a boy and his father are sitting under a great banyan tree. The boy asks his father where all this creation comes from. The father asks the boy to open a seed of the tree and look inside it. The boy opens the tiny seed and says he sees nothing — the seed appears to be empty. The father explains to his son that the huge tree comes from something he can't see with his eyes.[1]

The father's analogy is intended to explain that the whole universe comes from nothingness, that the origin of all we can experience is not anything that can be appreciated in physical or material terms.

And this is what we are proposing. This postulate is a possibility, a theory. Even if we decided to believe firmly that it makes sense, that this is how things are, it is not yet proven. But, since this theory will be able to explain many mysterious things, we feel confident in it — it's a solid working model.

For one thing, by postulating that the origin of everything is Consciousness, which is nothing physical, we have already solved the problem of its origin. One cannot ask who or what created Consciousness or where and when it started or will end. Because it is nothing, there is nothing to create or be created and nothing limited in space or time.

So, in going round and round, did we come back to two separate natures of existence — one nonphysical, eternal, absolute, and the other physical,

changing, and relative — just as Descartes postulated? The short answer is no. More needs to be brought to light about the Consciousness paradigm before our answer to this question makes sense. For now, let's just say that Consciousness does not create a separate physical reality outside itself.

How can that be? Are we saying that our universe and all the things in it, all the things we love, imagine, expect, and so on — all this — is an illusion? * That they are not real? This is not true. And this brings us to the third fundamental step of our theory.

So far, I've highlighted Consciousness as being nothing material. The nature of Consciousness is to be conscious. To be conscious requires an observer, a process, and an observed. Being conscious, pure Consciousness assumes these three different roles. Thus, these three roles are inherent within Consciousness, not separate from it. Each role represents a different point of view in Consciousness. Looking at itself from different perspectives, the one absolute pure Consciousness assumes three roles by virtue of its nature of being conscious.

From where does this manifest world arise?

In a traditional story in the Upanishads, a boy wants to know the source of creation. “Break open a seed of this banyan tree,” says his father. The father explains that the great banyan tree emerged from the nothingness inside the hollow seed.

Likewise, the universe arises from the apparent nothingness of Consciousness. Yet Consciousness is nothingness only from a physical-world perspective. From the perspective of Consciousness, that “no-thing-ness” is infinite fullness. Consciousness is by nature conscious of itself. The Consciousness paradigm explains how Consciousness gives

rise to the manifest universe through the process of knowing itself from endlessly varied perspectives.

This is like a man saying, “I am John, the conscious observer and thinker. I am aware of myself. I am also a doctor. And I am this body.”

The same John can see himself from three different perspectives, yet he remains one person. In the same way, although on a much subtler level, pure Consciousness sees itself from three different perspectives: observer, observing, observed. These perspectives exist *conceptually* as separate aspects of the one Consciousness, each perspective having its own different flavor.

To illustrate this, let’s return to the analogy of set theory. Set theory says that the empty set is one entity written with two brackets containing nothing between them: { }. The notation signifies nothingness. This might tempt us to think of the empty set as an object, as if outside consciousness. But then we wouldn’t grasp its full significance — the empty set is a concept *in* Consciousness.

The empty set has three components:

- emptiness
- the concept of a set
- putting emptiness in a set

The third aspect may sometimes be overlooked because it’s sort of nonmanifest. However, emptiness and set considered separately do not constitute the empty set. We need to put the two together. Linking the two is a process, just as an observer and an object cannot constitute an observation unless they’re connected. If both Jane and a rose are in a room but Jane does not see the rose, there is no observation, no conscious awareness of the rose for Jane. The connecting link is essential to any process of observation, any conscious experience.

Scientists have long tried to separate the process of conscious experience from the object of observation — necessary, they believe, to assess reality accurately. To see objects as they are in their essence, we must prevent the subject (the observer) from interfering with the process of observation — this is the logic. Otherwise, an object would be seen only from the personal point of view of the subject rather than as it is in itself. But in practice, this has been nearly impossible to achieve.

For most of the history of modern science, only the physical has been considered a reliable reference. Even recently, as scientists have investigated

the mind, behavior, and consciousness, they have almost universally believed that all mental processes, including consciousness, are the product of a complex organization of matter such as the human nervous system, even though no theory comes close to showing how consciousness can emerge from physical phenomena.

In our new paradigm, we start with Consciousness. We postulate that Consciousness is singularity, the ultimate unified field, the unmanifest oneness of pure existence. The current physicalist/ reductionist point of view postulates that one day psychology will be fully explained by biology, biology by chemistry, chemistry by classical physics, and classical physics by quantum field theories, culminating, ultimately, in a unified field theory explaining everything. It's unclear whether that reductionist project will succeed at the manifest, material level. But let me take its end goal a significant step further and say that Consciousness is all there is and that the ultimate unified field theory will be a theory of the self-interacting Consciousness.

The alert reader will remember our earlier discussion of emergent phenomena and may ask why consciousness cannot be eventually understood by science as emerging from the highly complex and orderly arrangement of a physical brain.

According to the Consciousness paradigm, the human brain itself is a manifestation of a specific set of bits, modes, and patterns of Consciousness. Our brain is not the source of consciousness; rather, it is one manifestation of Consciousness.

The complexity and orderliness of the brain's structure and dynamics allow the experience of the specific human quality of Consciousness and, for each person, the quantity of that quality, which is that person's personal state of consciousness. Other entities will experience other qualities of Consciousness according to the complexity and orderliness of their structures and dynamics.

All these qualities and quantities of Consciousness are already present in the unmanifest field of pure Consciousness. Thus, every so-called emergence is understood as already present in the unmanifest rather than being a never-before-imagined phenomenon.

The important point here is that every field of investigation by science — psychology, biology, chemistry, classical physics, quantum physics, and unified field theory — is Consciousness looking at itself from a different perspective and discovering ever-new aspects of itself, manifestations already

present virtually in unmanifest pure Consciousness that become known in our manifest reality through the diligent work of scientists.

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* In the Consciousness paradigm, I define *illusion* as a mistaken understanding about the reality of a thing. You see a rope in the dark and you think it's a snake. In your mind, the snake is real and, indeed, for you it is real, but it is an illusion since, in reality, it is simply a rope. Therefore, it is a matter of definition; reality is different in different states of consciousness or levels of knowledge. It is relatively real that the Sun moves from east to west in the sky, but that is an illusion with respect to the reality that Earth actually rotates around its axis, giving one the illusion that the Sun moves in the sky. The important thing to note is that I am not referring to the sort of delusional illusion that, for example, might befall a very ill and feverish individual who simply sees things that aren't there or don't exist at all.

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CHAPTER 7

CONSCIOUSNESS: ONE AND MANY

Pure Consciousness is singularity, the ultimate unified field, unmanifest oneness of pure existence. It is not like a screen on which objects or thoughts are projected. Nor is it just the ability to observe. It's what we call the quality of *Observerhood*.

We define Observerhood as the ability to sense, detect, feel, witness (in short, to experience) anything. It is a potentiality. But the observer aspect is only one feature of being conscious. To be conscious implies and demands awareness of an object of that sensing, feeling, perceiving — its *Observedhood* quality — and also some means of connecting the subject to the object, the knower to the known — its *Observinghood* quality.*

To be conscious requires the triple** of observer, process of observing, and observed. We call the triple a *bit* of consciousness and express it in these ways:

observer>process>observed

subject>process>object

Observerhood>Observinghood>Observedhood

These three — the observer, the process, and the observed — do not exist as separate entities. The three roles that pure Consciousness assumes are interdependent; they do not exist separate from one another or from pure Consciousness itself.

To use another analogy, imagine a fictitious play that requires three actors. Say it is the story of a prosecutor and a defense lawyer arguing in front of a judge. Assume there is only one actor playing all three roles. In the same way as having the one actor play three different roles, pure Consciousness — singularity — assumes the three roles of observer, observing, and observed.

The dynamism within pure Consciousness

The difference between this and the analogy is that Consciousness assumes all three roles simultaneously, not sequentially. It is what we call *the self-interacting dynamics of Consciousness.* Consciousness as if curves onto itself, interacting with itself in the process of becoming conscious. Assuming three roles, Consciousness is nonetheless conscious of itself. In the play, the one actor interacts with herself as she assumes different roles. The actor is one; the three roles are multiple and different from one another.

The availability of different roles is what allows dynamic interaction even while the actor is the same person. If there were no differences, no multiplicity, then there would be no interaction, no processes, no dynamism: it would be just oneness, stillness, silence. Thus, in the case of pure Consciousness, the absolute oneness has dynamism by virtue of playing the three different roles. This is because its nature is to be conscious.

Consciousness is unbounded, beyond time and space, outside any reference point. It is the primordial singularity and is itself the observer, the process of observing, and the observed. The range of possibilities of being the observer or the process or the observed lies between two extremes. The first extreme is nothingness, which means there would be no observer ability, no power to participate in a process of observing, and no capacity to be perceived as an observed, an object. The opposite extreme is the ultimate ability, which means that the unbounded value of singularity itself participates as observer, process of observing, and object of observation. The supreme or highest level of Observerhood is singularity in the role of the observer, singularity in the role of the process of observing, and singularity expressing itself as an object of observation or experience.

Let’s go back to our analogy of the play with three roles performed by one actor. The actor can fully embody each role she plays and while acting can feel completely engaged in the role. Thus, the actor has a new perspective every time her role changes: that of the judge, of the prosecutor, and of the defense lawyer. These three perspectives appear as real when the actor invests herself in them.

In a similar way, singularity — the oneness of Consciousness — plays the three interdependent roles of observer, process, and object. This generates three new and different perspectives of Consciousness on itself. The perspectives or points of view are different. However, since all is Consciousness, there is no independent subject, no independent process, no

independent object: the perspectives are within and about Consciousness. Nevertheless, being different they create multiplicity: the triple within the unity of observer, process, and observed. Thus, the emergence of multiplicity from unity is a matter of perspective.

One actor takes three different perspectives

The same skilled actor can play the role of defense attorney, prosecutor, and judge. In each role, the actor immerses herself in a completely different perspective, to the point where she seemingly becomes that role. This analogy helps convey how the singular field of Consciousness can assume different roles and see itself from different points of view. All manifestations in the world around us are the same singular Consciousness experiencing itself from different, limited perspectives.

Having different perspectives generates within Consciousness new ways of being conscious. The primordial way of being conscious is that of pure Consciousness, and now we see that it is also possible for Consciousness to be conscious from more limited perspectives. It's as if pure Consciousness itself, being aware of its three-in-one reality, can put itself in the shoes of one of the more limited roles it is playing and see things from that perspective. It can also put itself in another role and see things from that perspective.

This is comparable to the actor in our analogy who is so fully immersed that she sees things entirely from the perspective of the prosecutor and then of the judge and then of the defense lawyer. The actor allows herself to be eclipsed for these moments and become fully invested in the different roles as she plays them. Newer flavors of perception will also arise — for example, those of the prosecutor looking at herself or when she assesses the judge or weighs the impact of the lawyer — and even more flavors of perception will occur when she is playing the judge or the lawyer.

In a similar way, Consciousness cascades into perspective upon perspective *ad infinitum*, ranging from that of the infinite, unlimited perspective of pure Consciousness to smaller, more limited perspectives.

Three faculties of Consciousness: ego, intellect, mind

In the play, there is the Self of the actor, which we write with an uppercase *S*. But the actor can be fully invested in the role she plays. When she assumes the role of the prosecutor, she could say to herself, "This is the self of the prosecutor." The self of the prosecutor is not the same self as the Self of the actor; it is a role that she plays. We can write this self with a lowercase *s*. Obviously, in essence, the prosecutor is the actor. In the same way, we have the self of the judge and the self of the lawyer. Both are the same actor playing three different roles. There is, therefore, one big Self playing the roles of three small selves.

Consciousness is equally conscious of its oneness and its multiplicity. It sees that each aspect of itself has its own flavor or point of view. These individual flavors or points of view have their own identities. In Sanskrit, the language of Veda and the Vedic literature, there is a term for the individual, separate identity or ego: *ahamkara*. The term *Atman* denotes the singularity of pure Consciousness, as distinct from the multiple roles it can play. *Atman* means the ultimate Self. *Atman* highlights singularity in the context of multiplicity. It differentiates singularity from all other possible individual

selves or *ahamkaras*. In our analogy, the Self of the actor is the *Atman* and the selves of the three roles are the *ahamkaras*. Just as the same actor plays all the roles, all *ahamkaras* are, in essence, *Atman*. The true Self of each *ahamkara* is indeed *Atman*.

The sense of self-identity of the prosecutor as different from that of the judge or of the lawyer is the ego (*ahamkara*) of the prosecutor. And likewise for the judge and the defense lawyer. Obviously, the actor is aware and knows that the three roles (the three selves or three *ahamkaras*) are different. This sense of discrimination is intellect — *buddhi* in Sanskrit. The term *buddhi* comes from the root *budh*, which means "to be awake," "to know." To be aware of differences, to know what there is and is not is the discriminative quality of the intellect, *buddhi*.

The ability to assume one role and then another, back and forth, is like the mind's ability to hold one thought and then another, back and forth. We call this ability the *mind* (*manas* in Sanskrit).

Thus, the one Consciousness appears as many and spontaneously exhibits, inherent within itself, three faculties: identity (ego or *ahamkara*), the ability to discriminate (intellect or *buddhi*), and the ability to associate itself with various roles (mind or *manas*).

The concepts of space and time within Consciousness

The concepts of space and time are also spontaneously generated in the same process of Consciousness being conscious of itself or knowing itself.

We define space as a notion that allows different objects to appear simultaneously, that is, at the same time. If two objects were to occupy the exact same space at the same time, they would be the same object, not two different objects.

As mentioned earlier, many characteristics of the dynamics of Consciousness are not brought to light by the analogy of the actor in the play. For example, the three aspects of observer, observing, and observed, as well as the cascade of perspectives, are roles that Consciousness plays simultaneously rather than sequentially. It is as if the actor can appear on the stage in each of the three different roles with their endless nuances all at the same time. To have the judge, the prosecutor, and the lawyer all at the same time, there must be a space for each.

In the Consciousness paradigm, this is how space becomes a reality: the simultaneous appearance of different entities is what generates the notion of

space. Space is a concept that allows different entities to appear to exist at the same time. If there were only one chair (one space), then only one person, normally, could occupy that chair (that space). If there were 100 people needing to be comfortably seated, we would need 100 chairs — we would need that much space.

And what about time? Time is a concept that allows different entities to fill the same space: many can occupy the same space but at different times. In other words, in a classical universe, if there were only one space, many objects could be in that space but only at different times. If there were only one chair but 100 people, all could sit in that same chair but only at different times.

Now, let's step back and recall that in the singularity of pure Consciousness, all is unmanifest. There is no space-time relation because space and time do not yet exist; they are just concepts. It is important to keep this in mind, that space and time do not appear as real until manifestation "happens" within Consciousness.

Multiplicity within oneness: modes and cascades of perceptions

Let's summarize what we've covered so far. Pure, absolute Consciousness is one, an eternal reality of unbroken wholeness. The three-inone nature of Consciousness is a concept, and the perfect symmetry of the singularity of Consciousness is as if broken by this concept. Nothing different from Consciousness emerges from Consciousness. From one point of view, Consciousness is singularity and pure potentiality. From another point of view, Consciousness is a real and conscious entity having three values within itself. These three values are its own Self (observer) looking at its own Self (observed) in a selfreferral process (observing) by means of its own Self.

Multiplicity does not "emerge" because of any outside agency, for there is nothing outside singularity. It happens because singularity is Consciousness and Consciousness is conscious, which means it inherently has this three-in-one nature. Further, multiplicity does not develop over time. There is no time in the singularity and, therefore, no time when the three and the one are separate and no time when there is one without the three.

As the grand field of pure, primordial Consciousness looks at itself, it sees the three primordial perspectives of knower, knowing, and known. These perspectives generate new perspectives of Consciousness on itself. New

perceptions that have been modified by preceding perceptions are what I call new *modes* of perception. New modes look at each other in new ways, generating an infinite *cascade* of modes.

Another analogy may help to illustrate this and clarify how Consciousness plays an endless number of roles. Imagine a man, John, who might easily be viewed in a multitude of ways. He might be a caretaker for a sick parent, a volunteer at a local charity, a guitarist, or, on the weekends, a softball player — just to name a few.

For simplicity's sake, we begin by imagining John in terms of three fundamental roles he plays as a professional engineer with a wife and children. He can say, "I am an engineer; I am a husband; I am a father." These three roles or functions always reside in him. He is only one man, but he can be viewed and understood in three different ways. The function being performed highlights one or another of his various aspects. Similarly, the one Consciousness, when it assumes its function of being conscious, sees within itself three different roles: the observer, the process of observing, and the observed.

Let's now see what our notion of John as an engineer becomes when separated from the original, holistic, three-in-one idea of John. When John wears his engineer's hat and functions fully and wholeheartedly as an engineer, he is in some way not a husband or a father. Of course, inherently he is all three, but this one function eclipses the others when attended to fully and unequivocally. Similarly, when he comes home from work and reads a bedtime story to his daughter, his father-function eclipses his other roles.

Further, suppose John learns how to meditate. He now feels calmer and clearer in all his activities. This change in John is what we defined as a new mode of perception. He changed after learning meditation. He is now operating with a new mode. Everything we learn, every new experience and perception changes us. New mode after new mode is the cascade of modes.

While this analogy has limitations, it sheds light on how singularity can be conceived when taking on each of its three roles separately. This is just a theoretical notion, as there is no time when the three roles and the one Consciousness are separate, nor any time when the one Consciousness is without all three roles. However, for the purpose of analysis, we may imagine singularity taking on each of the three roles in isolation without the other two roles being present. That is, while remaining all that there is, singularity as if conceives of what it would be like to assume separately only one of the three roles.

It’s not that Consciousness gets divided into three. It's the same Consciousness looking at itself from three different perspectives. This is why I am emphasizing the term *concept*. When Consciousness conceives only of the role of observer, then the observer is all there is. This applies in the same way for the observing role (the process of observation) and the observed role (the object).

The virtual and the real

For a triple to be an experience, a bit of Consciousness, all three perspectives or roles — observer, observing, observed — must be present. When any one or two of the three roles of Consciousness is missing, the triple is only a concept, something that can be entertained in the imagination of Consciousness but that does not truly exist. This is the definition of a *virtual* entity.

A conceptual (virtual) entity is different from a *real* entity. When a subject (an observer) and an object (observed) come together in a process (observing) — that is a real bit of Consciousness. The object exists for the subject who is observing it. When Jane sees a rose, that moment is real. The rose by itself, when not observed by Jane, is virtual for Jane. The rose might be real for any other entity that is interacting with it, but it’s not real for Jane when Jane is not observing it (not interacting with it).

For Jane, the rose exists when she sees it, smells it, or feels it. When Jane thinks of the rose, her thought process is real, and the thought of the rose exists as an object in a real bit of Consciousness in which Jane is the subject, but the rose itself is virtual for Jane when it is not directly observed by her.

For the rose to be real, to be localized in time and space as an existing object, an observer is needed. The observer does not have to be a human. For different observers — a bee, a mouse, an elementary particle — the flower is experienced differently. What is real is relative to the subject, the process of observation, and the object.

Thus, we have identified two types of entities: virtual and real. What almost everyone calls real — the concrete objects of daily life — are virtual concepts when considered as independent objects without any observer observing them. They have no real, objective, localized, and independent existence in themselves of their own — they are only virtual concepts in Consciousness. And when two virtual entities interact with each other, they stop being virtual: they appear as real to each other.

To clarify this, let's do a thought experiment. You buy a chocolate bar but do not wish to eat it right away. So, you leave it on your kitchen counter and go to your office. When you have the bar with you, it is real. While you are in your office, the thought of the chocolate bar is real but the bar itself is virtual.

Why is that? You cannot guarantee what happens to it. In fact, your daughter comes home and eats it. The chocolate bar you bought does not exist anymore. You think it still exists — it is virtually there for you, and it is real in your thoughts. However, you cannot be sure it is there as a real bar on your kitchen counter until you observe it again.

The field of manifestation is a field of constant change. Indeed, nothing in the manifest is ever the same. The reality of an object is a temporary and limited experience. So, we always have to ask: The object is real for which observer and in what process of observation?

This also addresses the question of what exists. All possibilities exist as *virtual* entities in the Absolute realm. Why? Because the Absolute experiences and knows that Consciousness is all there is. No object is other than Consciousness; all is *imagined* by Consciousness within itself. Whereas, in the relative realm, individual limited perceptions in Consciousness make "things" appear as real on their own level as separate objects.

Absolute reality and relative reality

For Jane, the rose exists specifically as Jane sees it, smells it, or feels it; another observer could potentially see it, smell it, or feel it differently. These are aspects of reality and existence that are relative and not absolute; they depend not only on the object but also on the observer and the observing process. On the other hand, what we generally consider most abstract — Consciousness — is absolute reality.

Relative reality is made of an observer and an observed participating together in a process of Consciousness. Without the three coming together to create an instantiation of Consciousness — a bit of Consciousness — there is no existence, no relative reality, only the unbounded ocean of Consciousness as the one absolute reality.

Existence, Reality, Being, the Absolute: these have been the subjects of endless discussions throughout the centuries. In our paradigm, Consciousness is all there is. Does this mean that tables, trees, animals, and other people are only illusions? Not at all.

Ancient Vedic texts use the term *maya*, suggesting “illusion,” to describe the inaccurate impression we humans usually have about reality. *Maya* has often been interpreted to mean that nothing exists, that we live in an illusion, wrongly convinced that objects are real. This interpretation, however, is incomplete.

We have already discussed what makes reality relative: when it is relative to a particular observer. In our definition, we have considered all bits of Consciousness as real. When Jane sees the rose, there is a moment of Consciousness, a bit of Consciousness represented by the triple *Jane>sees>rose*. This moment is real for Jane, even though it remains real only for an instant because Jane and the rose are constantly changing. And Jane can look at herself and be aware that she exists — this also is real for Jane.

However, Jane might regard herself and the rose as realities independent of Consciousness. This is *maya* — the illusion of being something other than a process in Consciousness. Jane and the flower are indeed real, but only in the sense that they are real relative processes in the dynamics of Consciousness reflecting on itself — Consciousness knowing itself from a relative perspective.

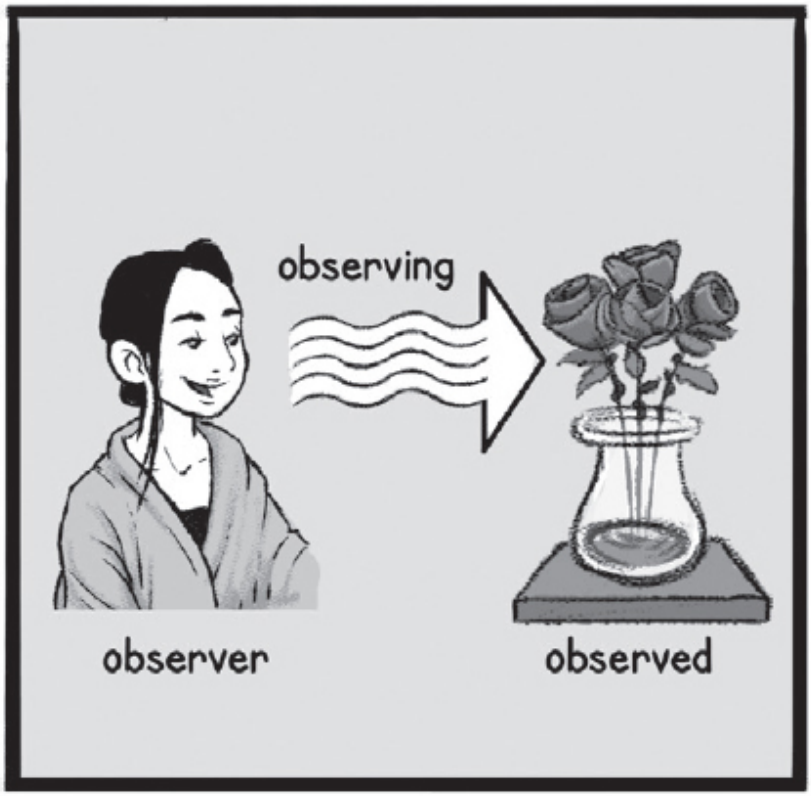
Jane and the rose are just two of the infinite ways that Consciousness looks at itself. All triples — all observers, processes, and objects — exist eternally in the absolute, unmanifest field of all possibilities where ultimate reality resides. As I will describe in the following chapters, in manifestation they are lived and experienced with narrow perspectives in the constraints of time and space in which they appear to come and go.

In this roiling cascade of bits of Consciousness looking at each other from different perspectives, the singularity or oneness of Consciousness gives rise to the multiplicity of the world we experience. The oneness of Being becomes differentiated and appears as individuals, as you and me and the entire manifold panoply of the universe. Oneness is absolute reality; multiplicity is relative reality. What can be said to be unreal is the view that the Many are separate from the One and that manifestation is ultimate existence.

Bits of Consequences: how we create our own reality

When Jane thinks of the flowers, the thought of the flowers is real for her. However, the flowers themselves are only virtual for her because she is not directly perceiving them. When Jane perceives the flowers, then they are real for her.

The three components of a bit of consciousness



What are the flowers without a human observer?

Each moment of experience is a bit of Consciousness, created by the coming together of the observer (subject), process of observing, and observed (object). This is how our reality gets structured within our own consciousness. Something is experienced as real only when these three elements come together.

The One looks at itself, experiences itself, and knows itself from an endless number of perspectives. These perspectives are the bits of Consciousness, the innumerable real triples. Whether manifesting for a split second or for eternity, whether unique to an individual or to a species (such as humans), whether a dream, a hallucination, or part of a traditional culture, all these bits are real moments in which Consciousness, adopting individual roles as specific observers, looks at itself from one or another observer's point of view. The impact of these moments, their causal power across various observers, and their persistence in time — usually thought of as hallmarks of reality — are also relative, not absolute.

Relativity here simply refers to the conditions under which the observation of so-called reality has been made. Those conditions are relative to the subject(s), process(es), and object(s) participating in the bit of Consciousness. Individuals and groups of people, too, can set standards for what they consider real. Thus, reality remains relative to individual observers, objects, and circumstances, whether those experiences are individual or collective, common or rare.

Picture again a man walking at night who sees a piece of rope on the path but mistakes it for a snake. Some would say his experience is not real. But for him at that moment it is real. The rope triggered a set of impulses in his nervous system that led to him seeing a snake. Suppose the man was on his way to redeem a ten-million-dollar lottery ticket, but upon seeing what he thinks is a snake, he has a panic attack, runs away, and in his confusion loses the ticket. The consequences of that moment could be far-reaching for him, his family, and many others — consequences that could be quite persistent over time.

The psychophysiological connection

The fight-or-flight response takes a serious toll on the body if triggered too often. And it can be triggered when you don't need it, as in the case above: There is no snake, it's only a piece of rope. Because the man mistakenly perceives it as a snake, his body reacts accordingly.

Studies show that people practicing the TM technique develop a healthier response to stress. As you de-stress your nervous system and develop expanded consciousness though twice-daily transcending, you're far less likely to see threats where there are none,

and more likely to see opportunities when there are challenges. With a more efficiently functioning nervous system, you're better prepared to act when there's real danger.

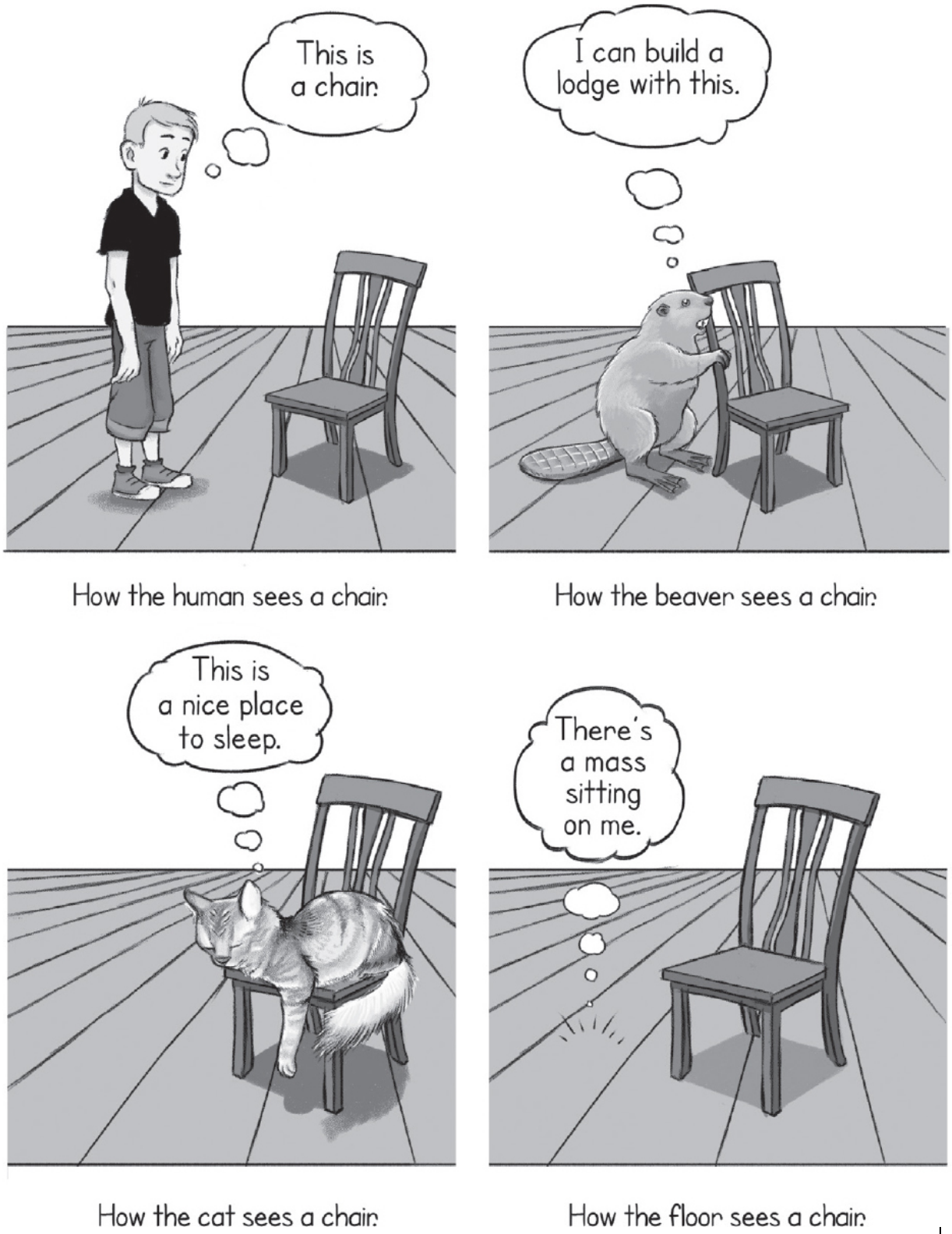
It matters less that for all other people it was just a rope and the man was mistaken. Indeed, if the man doesn’t look back and continues to say it was a snake and all people believe him, then the snake, albeit in this case a nonexistent snake, has caused him to lose a completely different life for his family and friends.

Full and partial essences

For most of us, reality appears as matter taking the form of independent, self-contained physical objects. We are oblivious to entanglement — the quantum field nature of objects — and to the true, full, absolute essence of things, whether ropes or snakes. The true, full, absolute essence of every subject, process, and object is Consciousness. Individually differentiated essences are virtual concepts. Those separate, partial essences manifest as real entities in a potentially endless number of ways when they become part of relative bits of Consciousness.

Two observers might experience an object that embodies a specific partial essence quite differently. Consider a wooden office chair. For us, a chair is a concept, a virtual entity — we define it as a structure we sit on. But the perspective on what the actual chair is does not depend only on the chair itself as an object. It also depends on the observer and the process of observation, including the conditions under which the chair is experienced. For us humans, it’s something to sit on. For a cat, it could be something to sleep on; for a beaver, something to cut with its teeth and use in building its lodge; for the field of gravity, a mass distorting space-time geometry; for someone hallucinating, a flying machine.

Different levels of consciousness: different realities



The man sees the chair and recognizes its function. For the beaver, it's not a chair, it's wood to build a lodge with. The cat sees it as a resting place. The floor, with the least

amount of consciousness, has no awareness of the chair other than reacting to the mass pressing down on it in four places.

What about the chair in the other room that I do not see? Or the unseen child outside throwing a snowball? Or a distant galaxy I cannot see? Are they real for me, independent of me? By our definition, if I have not observed them, to me they are virtual.

But observation doesn't necessarily mean direct experience through the senses. It's enough that these entities exercise the slightest influence that I somehow detect, whether distinctly or subliminally. This could be as insignificant as a minor gravitational or electromagnetic effect that's part of the large number of bits of Consciousness that I'm experiencing in any way. As such, they are real for me.

The full essence of the wooden chair might include an object on which to sit or sleep, an object used as a shield or a weapon, wood that could be used as fuel in the fireplace, and so on. My appreciation, as an observer, of an object's reality will always be limited to the object's partial essence that I am able to conceive and sense, and this will always depend on the modes, patterns, and networks of my consciousness.

In summary, the unbounded, absolute totality of the unmanifest is Consciousness in its wholeness, conceiving innumerable virtual observers — imaginary individual loci of consciousness. These could conceptually interact with each other in myriad ways — processes — and thus could potentially appear to each other as myriads of objects. This is the field of all possibilities in the unmanifest, where all these never cease to be. Each fully participates in the wholeness of Consciousness and has its own essence.

All possibilities thus exist virtually in the unmanifest. This is where their absolute reality and full essence "reside." Some may manifest and appear to exist, but only as relative or conditional realities in their partial essences, because no manifest observer can observe any one of them in its full essence. Only the one unbounded ocean of Consciousness can observe and know the full essence of its manifestations.

In the unmanifest realm, each triple of Consciousness is balanced by its equal and opposite triple, each particle by its antiparticle. In the process of manifestation, triples can exist locally for some time, independent of their equal and opposite triples, precipitated into a space and time framework in which their existence is no longer virtual but may be considered real by whatever or whoever is observing them — at least for some time.

Thus, every observer, process, object, and bit of Consciousness has a dual existence: one virtual and absolute and the other relative. Its virtual, absolute existence is its full essence as known by the wholeness of Consciousness. Its

relative existence reveals only parts of its essence to particular observers, which is Consciousness adopting a limited perspective on itself while ignoring its wholeness. Observers in the manifest could be anything, including a human being having an enlightened perspective as well as a subatomic particle simply mediating a fundamental force.

***Observerhood*, *Observinghood*, *Observedhood*: These three terms have been newly coined for the paradigm we are discussing; you will not find them in a dictionary. They denote the extent to which any entity can be an observer (Observerhood), a process (Observinghood), or an observed object (Observedhood).

**** A triple in mathematics is a grouping of three elements in which each element's position can be defined with a specific function. In this case, the first element is the observer (subject), the second is the observing process connecting the observer to the observed, and the third is the observed (object).

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CHAPTER 8

THE CANVAS OF MANIFESTATION

To understand the fine fabrics of manifestation, we looked at the fundamental elements of Consciousness. We discussed its essential nature as singularity, with the three aspects of subject, process, and object inherent because it is conscious. We probed into how, within unmanifest Consciousness, there is both oneness and multiplicity. We analyzed how the concepts of ego, intellect, mind, space, and time emerge, and we highlighted the difference between the unmanifest and the manifest, between the virtual and the real, between absolute and relative reality, and between full and partial essence.

Now we can start examining how those aspects together weave the canvas of manifestation — the fabric of which manifestation is made. Once this is done, we will be able to examine closely the mechanics of manifestation and why it happens.

When we say various entities exist in the manifest universe, we are saying that various objects are observed in the universe. In the commonly experienced states of consciousness, it is not possible to tell for sure whether any entity other than us has consciousness or what goes on in anyone's mind. We can try to guess and postulate a theory of mind but we cannot assert it, nor can we be aware of the processes taking place during an observation.

We can, however, assert from our point of view that others exist as objects. Therefore, in the usual states of consciousness, when you observe another entity — whatever its level of consciousness — that entity is for you an object; its consciousness is hidden.

Let's examine this by looking more closely at the characteristics of the three fundamental aspects inherent in Consciousness:

- The *observer* (knower) is the nonactive, uninvolved, silent subject, *the witness*.
- The *process* (knowing) is the mechanics of observation in which Consciousness moves as *the active, involved, dynamic process* of becoming conscious of something.
- The *observed* (known) is the object of observation, of knowing. The object is *what exists*. Pure Consciousness knows it exists by the process of experiencing itself as an object. The object is neither a silent witness nor a dynamic process, but it is pure Consciousness. When we experience the object, it dominates our awareness, and the subject and process go into the background. The object hides both the witnessing subject and the dynamic process. *Hiding* is a fundamental characteristic of the object.

Objects and how we experience them

For a sense of what hiding means, look at how we experience objects. Perception has many steps, which can include attention, selection, transmission of neural information, primary processing, comparison, interpretation, categorization, organization, action, and reaction.

When you are aware of an object, say a door in your room, the door dominates your awareness and other aspects fade into the background. When you perceive the door, you are largely unaware of other perceptual experiences. You are not aware of all the processing taking place nor do you feel, for example, the weight of your clothes, and you may not hear nearby sounds.

This is because your attention focuses your awareness on specific objects. More important, you, the observer, are not in the picture. You're not aware at that moment that you are the one who is conscious of the object.

Stated differently, you do not think of yourself, your identity, your profession, and so on. Neither are you usually aware of the process by which you are seeing the door — the light illuminating the door and how the door reflects that light to reach your retina — nor do you analyze how the door got there in the first place. Your attention focuses on the object. During that moment you do not think of yourself (the observer) or the process (the observing) by which you observe the object. You could become

aware of those aspects, but these would be different experiences that would become different objects in your awareness.

When the object of perception thus dominating puts the observer out of the picture, the object has *hidden* the subject: the subject is simply not perceived. The object alone is acknowledged to exist, although, obviously, the subject is still a part of the process of observation.

In the Consciousness paradigm, to exist in the manifest universe means to be an object of observation by a subject. We humans have the capability of self-referral awareness. This means we can observe ourselves; we can be both the subject and the object at the same time. But when self-referral awareness is lost, we forget ourselves — our attention is fully absorbed in the object.

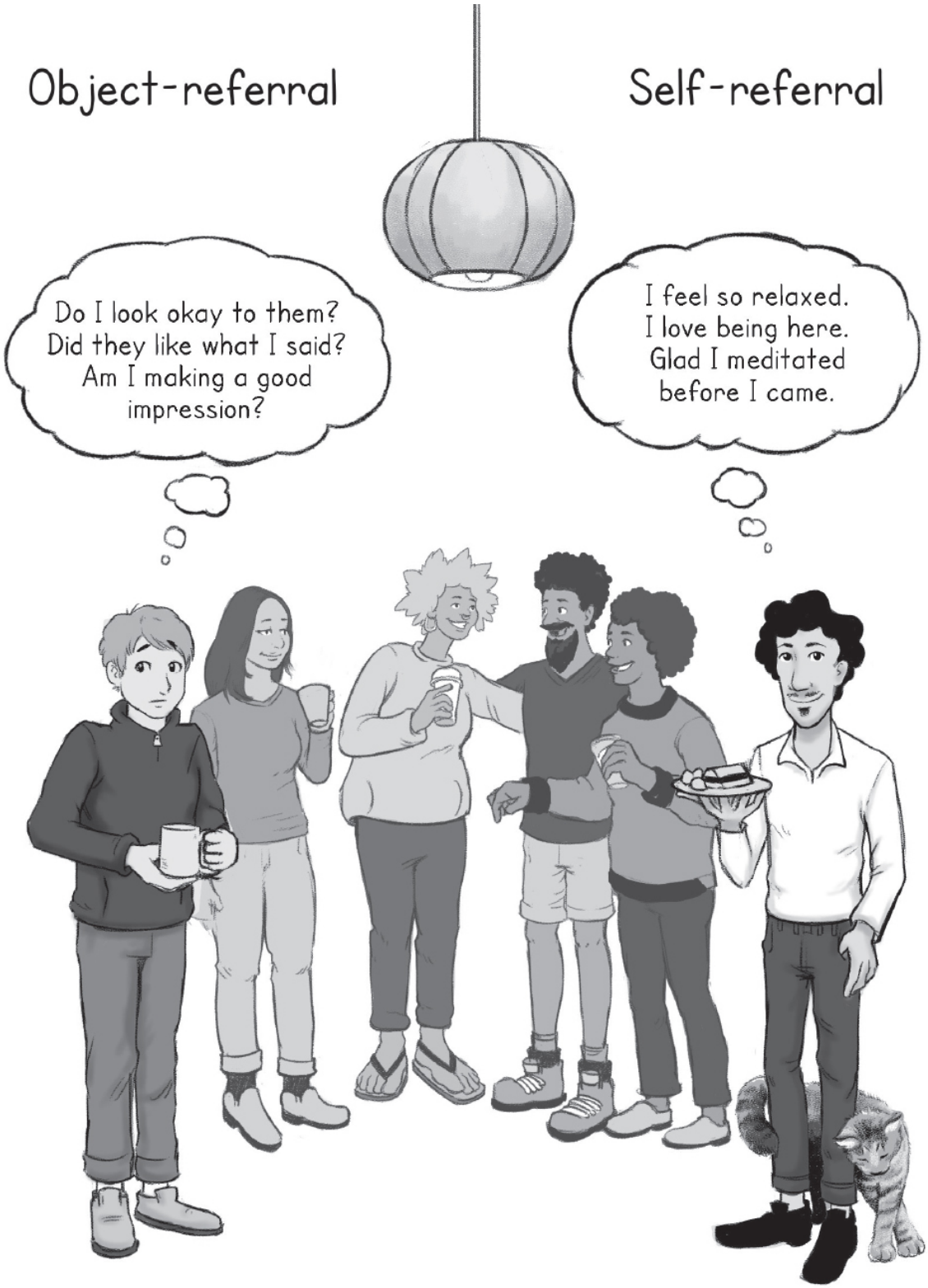
With no self-awareness, our sense of existing is contingent on other subjects observing us. The existentialist philosopher JeanPaul Sartre alluded to this in his famous play *Huis Clos* (*No Exit*). In *Huis Clos*, three characters are in hell, confined to a closed space with no mirrors. Sartre uses the absence of mirrors as a metaphor for players not being able to observe themselves.

One of the players, Estelle, says, “When I can’t see myself I begin to wonder if I really and truly exist.”[1]

Another player, Inez, promises to be an accurate mirror for Estelle, but only in order to seduce her. Thus Sartre uses the mirror metaphor to great effect: to see themselves while in hell, the players have to rely on the way that others see them.

Bondage and liberation

If we live our lives without self-awareness, with our attention always moving from one object to another, we are *bound* by those objects, in that we depend on them for our sense of existence. In the ancient meditation tradition brought to light by Maharishi Mahesh Yogi in his Vedic Science, this is described as *living in bondage*. Liberation, or *moksha* in Sanskrit, means being always self-aware, knowing that our true self is the Self of pure Consciousness, and thus being free from the binding or hiding influence of objects, even as we have all kinds of perceptions and engage in all sorts of actions.



Unfulfilled, lacking confidence, seeks outer approval

Contented, secure, self-assured, joyful

With our capacity of self-referral awareness, we can witness our experience: we can be both inwardly aware of ourselves and aware of objects outside ourselves, aware of both the subject and the object at the same time. If we have not strongly developed this faculty of self-referral awareness, not as an adopted mood but as a spontaneous, all-time experience, then the objects of our perceptions will dominate, hiding our subjectivity, putting our sense of self largely out of our awareness. The result will be what most of us experience — that we are object-referral, at the mercy of objects, tossed here and there by the waves of change in our daily lives.

But if, by transcending, we repeatedly bring our conscious awareness to the unbounded, ever-stable field of pure Consciousness, which is the inner Self deep within our minds, we will gradually develop an unshakable self-referral center to anchor, and enhance, all our experience of objects. We will then be able to say, as the English poet Alfred, Lord Tennyson wrote, "For men may come and men may go, / But I go on forever."[2] This is a basis for higher states of consciousness, which we'll discuss in detail in Part III.

The role of the intellect in experiencing diversity

Going back to primordial pure Consciousness, we find that when Consciousness focuses on its own existence as an object, the qualities of observer and process of observing are hidden. Let's call this the *primordial awareness* of existence.

But pure Consciousness is also conscious of the differences among its three aspects. As we've described, the ability to discriminate, to be conscious of similarities and differences, involves the intellect. Pure Consciousness has an intellect that we call the *primordial intellect*, which sees the individual identities of observer, observing, and observed and their differences while also recognizing that they are fundamentally the same pure Consciousness.

The primordial intellect is aware that the observer can be experienced as different from the process, the object, and pure Consciousness. Each has an identity, an ego. Awareness can be of one aspect or another. This we call the *primordial mind*, the ability of pure Consciousness to experience its various aspects without necessarily comparing them or intellectually analyzing their characteristics.

The primordial mind fathoms the various inherent aspects of Consciousness. The primordial intellect discriminates among its various aspects. These aspects exist, each with awareness, an identity, and its own point of view.

The silent observer, remaining in its infinitely silent witnessing quality, cannot be aware of anything besides itself if it remains grounded in its transcendental existence. It needs a process that allows it to actively reflect on itself.

Similarly, the infinitely dynamic observing process cannot be aware of anything if it does not settle onto an object. And there must be a quiet, silent moment for it to witness something. The process thus needs an observer quality too.

The object asserts existence and can be observed, but nothing can be seen without the observer and the process.

The intellect can see through each of these individual egos and postulate various perspectives: one with a predominantly silent character, another with a predominantly dynamic character, and yet another with a predominantly object character, where the degrees of silence and dynamism are hidden but could be of any value, any potential to be an observer or a process of observing.

The individual points of view, each with a different proportion of silence, dynamism, and object characteristics, are new, specific, differentiated perspectives. This presents an infinite number of points of view. This is how diversity emerges with an infinite number of perspectives.

The primordial intellect can simultaneously see the silent witnessing quality of the observer, the dynamic revealing characteristic of the process, and the hiding feature of the observed, all while aware that the three are one pure Consciousness. This is the supreme alertness of the primordial intellect.

A less alert intellect, as in common human experience, will be aware of only one aspect at a time. The supremely alert intellect sees all aspects along with their identities, resemblances, and differences, all at once and even when they have mutually contradictory characteristics, and it experiences them as objects within the awareness of Consciousness. Again, it sees that they exist individually, different from one another, while remaining as aspects within the one undivided Consciousness.

Ignorance and the mistake of the intellect

A less alert intellect, as observed in common human experience, will assume that objects exist on their own as entities that are different from Consciousness. This is what we call *manifestation*. Manifestation requires the hiding of ultimate reality. Different degrees of hiding of consciousness lead to different degrees of sentience. The less the hiding, the more the appreciation and experience of Consciousness. The more the hiding, the less Consciousness is experienced and the more it recedes to the background. What is experienced as real in manifestation is thus based on ignorance, different degrees of ignorance — ignorance of the true nature of ultimate reality.

To exist in the relative realm is to be an object of observation by a relative (limited, ignorant) observer. The object then appears to exist and be real for that observer. Paradoxically, ignorance (termed *pragya aparadh* in Sanskrit, or "mistake of the intellect") is a necessary component of manifestation. It may be hard to understand and accept this, but the initial impetus for manifestation is for Consciousness to learn, know, and reveal what it is like for it to be ignorant!

Our personal consciousness evolves within manifestation to regain the memory of the true Self as unbounded Consciousness. Our saving grace is that the process of this evolution happens with ever-increasing happiness and ultimately bliss in oneness, in the experience of Unity Consciousness, a topic we'll discuss in detail in Chapter 18. Happiness and bliss in manifestation are the result of the expansion of consciousness from limited perspectives to ultimate unity where the memory of wholeness is fully recovered — a memory that pure Consciousness never truly loses.

Is our universe populated by objects or by subjects?

Consciousness is all there is, and Consciousness is conscious through its three-in-one structure of observer, observing, and observed. This is the heart of the Consciousness paradigm. And we are equating *observer*, *observing*, and *observed* with *subject*, *process*, and *object*, or *knower*, *knowing*, and *known*.

But we just highlighted the importance of objectification in manifestation. We concluded that what manifests and appears to be real are

objects. Is this a contradiction? How is it possible that when Consciousness is all there is, only objects appear to exist?

This might seem particularly paradoxical because, of the three fundamental aspects of Consciousness, it is the subject that is conscious. The process of observing/ knowing describes the dynamics by which the subject is conscious. The object is the entity that the subject observes/knows. In common understanding, when we talk about consciousness we assume we are talking about subjects, knowers who are conscious. We do not consider processes and objects as being conscious.

This apparent paradox is a fallacy and not a contradiction or problem. The manifest universe is indeed populated by subjects. Every individual entity, whether a particle, a flower, or a human being, is in itself a subject, an observer, a knower. However, for each of these subjects with limited perspectives, objects are what exists.

It is the coming together of the subject, the process, and the object that generates moments of observation, which we have called bits of Consciousness. Without subjects there is no one observing and there are, therefore, no manifest objects. But, in the bit of Consciousness, subjecthood is the hidden, silent, and witnessing aspect. This is why no one can directly observe anyone else's consciousness. Subjecthood — subjectivity — remains always unmanifest.

In summary, every entity that manifests in our universe is, in itself, a subject, albeit with various limitations. All other entities appear to it as separate objects localized in space and time. All that there is, therefore, is a universe of conscious entities (subjects) perceiving each other as objects.

The range of subjects: from impersonal and personal Absolute to nothingness

Ultimate Consciousness is the one unbounded ocean of Consciousness. Its salient characteristics are oneness and absolute, nonchanging, unmanifest existence. This is the impersonal Absolute. It is a field of all possibilities of Consciousness — all possible ways of being conscious. In it are all imaginable virtual subjects, with each subject having its equal and opposite.

Why does each subject have its equal and opposite? Because if Consciousness can imagine any characteristic of subjecthood, it can imagine its opposite. All qualities of subjects thus balance each other, with

the impersonal Absolute always remaining undisturbed in infinite silence and peace. This is the quality described in the Vedic literature as *shanti*. Being all that there is, it is also described as pure bliss, the bliss of fulfillment. It is *sat chit ananda*: pure ultimate truth, Consciousness, and bliss.

However, as discussed earlier, Consciousness is also conscious of the specific identities of each of its infinite perspectives or modes of being conscious and of the differences among them. The primordial intellect simultaneously sees all differences within singularity. This adds a personal aspect to the impersonal Absolute. This personal aspect of the unmanifest Consciousness thus sees each as different from the other. It sees all possible ways of being an observer, ranging from one all-knowing, holistic perspective to a multitude of limited perspectives and ending in a conceptual nothingness — no consciousness at all.

For clarity, I introduce the concept of *subjecthood*. Subjecthood is defined by the scope of perception: how broad one's perception is defines how broad one's subjecthood is. In terms of consciousness, a broader subjecthood means greater possibilities of experiencing and knowing. A human being has a broader perspective than a cat and can experience and know more than a cat. Therefore, a human being has a broader subjecthood and higher consciousness than a cat. Subjecthood ranges from the unboundedness of the broadest perspective belonging to the one absolute Consciousness all the way to no consciousness at all or nothingness. In Chapter 12, we will examine this in detail and offer a logic for how it ranges from fullness to nothingness.

Whether we consider the oneness of the impersonal Absolute or the personal Absolute with infinite aspects and modes of being conscious, we're considering only a reality that has not yet manifested. It is not physical, not our material universe. Nonetheless, in the unmanifest, the imagined subjects include simultaneously all subjects that ultimately would manifest in one universe or another, as well as subjects that might never manifest.

Going from the broadest perspectives to the most limited perspectives and ending in nothingness, we find a cascade of increasingly specific and narrower perspectives that reveal the "parts" of wholeness. Although all is simultaneous in the unmanifest, we can imagine Consciousness shifting its

attention in different modes, moving from wholeness to parts. I call this process the outward, forward, or analysis journey.

The reverse journey can take place with the parts coming together to create larger and larger collectives right up to the ultimate singularity or wholeness of pure Consciousness. This I call the inward, return, or synthesis journey.

These two theoretical journeys in the unmanifest — synthesis and analysis — have implications for the dynamics underlying manifestation. But in the unmanifest they are simultaneous. For every analysis step there is an equal and opposite synthesis step keeping the unbounded ocean of Consciousness infinitely silent while virtually and infinitely dynamic.

As Consciousness as if curves in on itself, it is aware of itself and knows that it is simultaneously one and many. Self-analysis (self-knowledge) is thus the inherent, spontaneous engine that drives the process of emergence of multiplicity within the oneness of pure Consciousness.

As just highlighted, in the virtual realm of pure Consciousness, no time or space is involved. All is instantaneous, and the processes of the analysis, outward journey and the synthesis, inward journey are simultaneous, canceling or balancing each other. For every *A*, there is an equal but opposite *non-A*, and all *A*s and *non-A*s are simultaneous. All cancel or balance each other, resulting in nothing. Space and time do not yet exist, all possibilities are virtual, and nothing has manifested: this is the realm of the unmanifest.

The play of Consciousness

This is the paradox of Consciousness: While forever remaining one in its own unchanging singularity, it emerges within its unified state in diverse expressions. Nothing outside itself emerges — it's all a dynamism within Consciousness. Everything is ripples, fluctuations within Consciousness — one unbounded ocean of Consciousness in motion. This dynamism of Consciousness within itself has a name in Sanskrit: the *lila* or "play" of Consciousness.

Consciousness looking at itself in a primordial way is unbounded Being. But because Consciousness is the field of all possibilities, it could be less than unbounded Being: it could be any pattern between zero and infinity. All possible patterns of observers, processes, and objects are inherent

within the internal dynamics of the unbounded field of pure Consciousness interacting with itself. It is a perpetual journey from here to here, a beginningless and endless swinging from infinity to a point and from point to infinity while incorporating everything in between.

And what is in between? Infinite ways for Consciousness to look at itself.

The patterns of Consciousness

The entire, unfathomably infinite, universal creation is already there as unmanifested patterns of Consciousness. I use the term *pattern* to refer to groupings of bits and modes of Consciousness. To have a feeling for what this means, let's compare it to how physicists describe all that is physical and material.

Many physicists see the universe as emerging from one unified field, currently described most completely in M-theory, superstring theory, and elevendimensional supergravity. When discussing the origin of our physical universe in Chapter 5, we saw that the unified field is the source of fundamental forces such as gravity and the weak, strong, and electromagnetic forces, alongside the matter fields.

Excitations of these fields appear as large numbers of tiny quantities of energy called *quanta*. These quanta form the building blocks of the physical universe, emerging as elementary particles, which cluster in various arrangements, giving rise to atoms. Atoms are the foundational elements of both the mineral and the organic realms. Atoms form molecules. Molecules in turn organize into cells. Cells combine to create tissues and organs, eventually leading to complex organisms, including animals and humans.

At each level, from the simplest particle to the most complex organism, we observe intricate patterns composed of more fundamental constituents.

Similarly, elementary modes of Consciousness assemble to form more complex and sophisticated patterns of Consciousness. These different patterns are perspectives of Consciousness looking at itself. They are all that there is, and all remains nonmaterial, nonmanifest. For every perspective there is an equal and opposite perspective. At this level of reality, everything "happens" at infinite speed, so every perspective annihilates, cancels, or balances its opposite perspective.

(Remember that when I speak of speed in the unmanifest, I am speaking of a concept because speed is a relationship of space and time, and in

unmanifest Consciousness space and time are concepts.)

One key difference between the unmanifest and the manifest is that, in the unmanifest, what would be particles — virtual, meager “subjects” of Consciousness — are always conceived simultaneously with their antiparticles, therefore instantly annihilating, canceling, or balancing each other. But in the manifest, the separation between equal and opposite subjects and their perspectives due to the slowing of speed is crucial. I’ll discuss this point more fully later on.

You and I are patterns of Consciousness looking at itself. And an infinite potential of possible patterns exists between zero and infinity. Other patterns are Earth and Mars, a table, a tree, a dolphin, the stars and galaxies in and near the Big Dipper. How many patterns are there? An infinite number. They are just patterns of the one unbounded Consciousness moving within itself. All that one could think, imagine, dream, or postulate is there, virtually assembling and disassembling at infinite speed in an unmanifest field of all possibilities. Nothing can exist that is not already there!

This plethora of creativity is alluded to in the Vedic image of *Indrajala* (“Indra’s net”), which in the Buddhist version is an infinitely vast woven fabric in which a precious jewel sits at every junction of the threads. The remarkable quality of the net is that each of the innumerable jewels reflects every other or, in the language we are using, each is simultaneously an observer and an observed. As in a hologram, each individual jewel contains the essence of all the others in the infinitely vast network: the whole is contained in every part.

How do these patterns come about? Is there a sequence by which they arise?

Let’s first consider the primordial pattern: I am unbounded pure existence, pure Being, pure Consciousness; nothing exists except one pure Consciousness; there is nothing but my Self. And, since I am conscious, I must also be three values in one.

Does this mean the three values have somehow arisen after that first condition in which I am unbounded and there is nothing but me? Or are they coexistent? They must be coexistent, or it could not be Consciousness, which, as we have seen, automatically entails the three-in-one structure. But if the three-in-one “division” of the unbroken wholeness of pure Consciousness is simultaneous, then all other patterns — which are nothing but various configurations of Consciousness alone in its infinitely varied

play between zero and infinity — must also be simultaneous. Therefore, all existence, all reality, all phenomena, all patterns of Consciousness, all possibilities are always coexisting within Consciousness.

This is a crucial point in the Consciousness paradigm. Simultaneity means that processes of transformation, and the emergence and submergence of bits, modes, patterns, and networks, all happen at infinite speed. To speak more accurately, space, time, speed, transformation, emergence, and submergence are simultaneously present as concepts in this unmanifest realm.

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CHAPTER 9

SPEED LIMITS AND GAPS IN MANIFESTATION

One of the fundamental requirements for perspectives to manifest as self-contained entities is that equal but opposite perspectives are separated so they do not annihilate or cancel each other.

If a cat is conceived as alive and dead at the same time, the cat is virtual and not real. It's an unmanifest, unobserved entity, not a manifest, real cat. The unmanifest, as we have discussed, is a field of coexisting, infinite, virtual possibilities where the cat is both dead and alive and there is no contradiction. In the unmanifest, the shift of attention from one perspective to another happens at infinite speed: all possibilities are perceived simultaneously. In this simultaneity, all opposites cancel each other, and nothing can manifest.*

Infinite speed in the shift of attention is incompatible with manifestation. Manifestation requires the attention to move from one perspective to another at a speed that is less than infinite and more than zero. Since absolute pure Consciousness "operates" at an infinite speed, it must slow down to be able to experience its perspectives (its own inherent "parts") on their individual levels without the opposite of each perspective instantly canceling it. In slowing down, it makes a jump from the unmanifest realm, where infinity predominates, to the manifest realm, where specific quantities predominate. (Remember that all this happens within Consciousness, as both the unmanifest and the manifest are within Consciousness.)

To experience different things in the manifest realm, our attention shifts sequentially from one perspective to another — one observation, one object, one role — at a speed that is less than infinite. This is why, for example, when we examined the emergence of all possibilities in the unmanifest as a cascade of perspectives, we followed a sequence of logic. Our intellect required sequential analysis: we went step by step. We always must shift our attention

sequentially from one consideration to the next, from one perspective to another.

From this, we might think that the individual perspectives in the unmanifest must emerge in sequence. We might think it would be like looking at a landscape from a great distance away and then zooming in to examine it in closer and closer detail. Our first perspective would be of the entire landscape. Then we would shift our attention to the buildings, then the trees, then the roads, and, if we looked even closer, we would see the people, the cars, the animals, and so on. Next, we'd begin to analyze the smaller things, such as the bricks and mortar of the buildings. If we had the right equipment, our attention would then go to even finer things, such as the molecules, atoms, and elementary particles. And all of this would be happening in sequence.

However, in the unmanifest realm, pure Consciousness fathoms all its perspectives at the same time. It sees the wholeness while it sees every detail and the differences among those details: it sees all at once. To be able to conceive of this simultaneity within our human frame of reference, we say that pure Consciousness shifts its attention from one perspective to another at an infinite speed. With infinite speed, no time whatsoever elapses in going from one thing to another: all is simultaneous.

But, as the speed of the flow of attention slows down, different universes pop up. These different universes will have different limiting factors, constants, and the like. There might be an infinite number of universes, each with its own unique characteristics. Movement and speed in any universe are specific quantities. These specific, less than infinite speeds of attention (directed awareness) put limits on how fast an observer and an object can come together.

Since reality depends on the coming together of an observer and an observed, these speed limits influence what causes reality. (I use the term *causality* to refer to cause and effect in the emergence of a manifest universe.) Limited speeds of attention are the limits of causality. They are the defining factors for different realities in different universes. What causes our universe to emerge as it does are the limited speeds of attention peculiar to our universe, and these limits are the determining factors of all interactions.

Speed limits in manifestation

Unmanifest Consciousness shifts its attention from one perspective to another at infinite speed; opposites cancel each other and nothing manifests. In manifestation, attention

moves between perspectives at less than infinite speed, limiting how fast observer and object come together. Every universe has a limited speed of causality. In our universe, this is the speed of light in a vacuum.

Thus, in the manifest, there is a limit to how fast anything can happen. Pushing a door open is a physical action. It feels to us that the door opens instantly as we push on it. But there is an imperceptible time delay between the moment we push on the door and the moment it starts opening. Even if there were something that could push the door at close to the speed of light, there would still be a limit on how fast the door could open due to the limits on how fast the atoms and molecules of the door could become "aware" of the force acting on them, a limit on how fast they could transmit that force to each other, and a limit on the speed at which they could move. And it is not only physical events that have speed limits; human awareness, too, can only move at a certain speed when examining various objects.

In our manifest, classical universe, the speed limit is roughly 300,000 kilometers per second (about 186,000 miles per second), which is the speed of light in a vacuum. This limit is set by the highest possible speed of the movement of awareness, and this is what puts a speed limit on causality. It defines the properties and characteristics of space-time and of the vacuum, such as vacuum permeability. It defines the characteristics of the vacuum rather than the vacuum itself defining the speed of light and the parameters of causality. This speed limit cannot be exceeded, but lower speeds relative to space and time are possible.

In other universes, higher or lower speed limits might lead to different conditions of manifestation. These might include different realities with different laws and concepts of space and time.

To summarize: In simultaneity, "at infinite speed," all is instantaneously annihilated, countered, balanced: nothing manifests. Nothingness, the void, silence, and the vacuums of all possible universes could be fundamentally the same. Consciousness flowing at limited speeds defines the speed of causality. The limited speed of causality allows manifestation and defines the parameters of reality, including space-time.

What differentiates one universe from another is not the void but the speed of attention that sets the limit of causality within the vacuum of each universe. Thus, each universe has an absolute and a relative aspect. All universes share the one Absolute in common; it is the underlying source of every universe. But each individual universe has a particular speed of causality that gives it its specific, relative character.

At what we are calling infinite speed in the Absolute, there is no space or time. In reality, there is no sense of speed at all in the Absolute. Speed is a relationship between space and time. Space, time, and speed appear to be real

only in manifestation. As we have discussed previously, space and time are not the absolute, fixed entities we imagine them to be based on our daily experience. In the Consciousness paradigm, they are relative concepts. They depend on the observer's state of awareness and the speed at which the observer shifts attention from one perspective to another.

Gaps and manifestation

For humans operating on a classical level in the manifest, two or more objects cannot be different objects if they occupy the exact same space at the same time. To return to an example I used earlier, many people cannot sit in the same chair at the same time, but they can sit in the same chair at different times. Of course, they can also sit in different chairs (different spaces) at the same time. For two or more objects to coexist at the same time on the classical level, space is needed; for two or more objects to occupy the same space, time is needed.

Gaps are what separate objects from one another. Manifestation for human observers in the waking state of consciousness requires gaps. The gaps between objects allow them to be experienced as independent entities, either at the same time separated by gaps of space or in the same space separated by gaps of time.

But gaps are nothing and contain nothing! Nothing means non-Consciousness. Since Consciousness is all there is, gaps do not exist in the unmanifest Absolute. In the realm of the manifest, however, the concept of nothing can exist: nothingness can appear as if it exists and, hence, so can gaps. Adopting the illusion that nothingness exists is a prerequisite for the manifestation of objects as independent entities on the classical level of observation. The classical level is one relative level of perception, one kind of perspective. This is paradoxical because nothingness is the only concept that stands for what is not — for non-Consciousness — and yet it is a fundamental prerequisite for manifestation within Consciousness.

I have used the phrase *concept of nothing* because, like everything else in the manifest universe, objects appear to exist on their own as entities that are different and independent from Consciousness, whereas they all are Consciousness. By the same token, *nothingness can appear as if it exists*. The difference is that objects hide Consciousness while nothingness is in itself the concept of the absence of Consciousness — the ultimate aspect of objecthood!

In Chapter 5, I reviewed some features of physics and cosmology. I briefly discussed quantum mechanics, quantum field theory, and the collapse of the wave function. Now I'm saying that the manifest is quantized — that any human observer perceives reality as made of separate objects — because it is made of individual perspectives, individual separate bits of Consciousness. Attention in the manifest moves from one observation to another at a finite speed, automatically inserting conceptual gaps of space and time between one observation and another.

In the unmanifest, perspectives remain virtual, outside of time and space. There is no collapse of either the universal wave function or any individual wave function. Manifestation, on the other hand, is a perception in which some of the infinite number of virtual perspectives are seen as individual entities separate from one another and, for most observers, separate from pure Consciousness. To observers in the manifest universe, it is as if the wave function collapses and objects start existing as separate entities localized in space and time.

This differs from the Copenhagen interpretation, which assumes that the observer is responsible for collapsing the wave function. In the Consciousness paradigm, the observer can experience only a specific aspect of the object in a specific way. The observer concludes that the object is essentially what they observe. But the observer is deluded, ignoring the fact that the observation is subjective (self-referral). It depends as much on the observer and the observing process as on the object.

Reality has been described in many different philosophies as an illusion. I've mentioned the Vedic term *maya*, usually defined as "illusion." The universe has been called *maya*, commonly interpreted to mean that objects do not really exist, that they are illusions because nothing actually exists.

But that is not the illusion *maya* refers to. That illusion lies in asserting that nothingness is real, whereas in truth all is Consciousness. Everything is essentially pure Consciousness, fullness. There is not a thing that is nothing. From a physical perspective, Consciousness may be mistakenly regarded as nothing or nothingness. But from the perspective of ultimate reality, Consciousness is everything: it is fullness. The universe and all its objects participate in Consciousness: Consciousness is all there is.

If everything were to completely interact with everything else in the same space and time, nothing would appear to exist. For humans on a classical level of reality, there would be no manifestation. Separation is needed to be able to perceive individual existence as real. We need our place and our

space. We want everyone and everything in their place! This is comforting because our space ensures that our existence is protected, that we can exist as separate, independent entities.

In the Consciousness paradigm, since Consciousness is primary, distance is not real. Distance is a perception. In essence, there is no gap. We just happen to perceptually separate objects by gaps, localize them in time and space, and see them as independently existing entities whose strengths of interaction appear to us as distances in space and whose sequences of interaction appear to us as lengths of time. Manifestation happens in time.

And what is time? This we will consider next.

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* Erwin Schrödinger coined the thought experiment involving a cat to discuss findings in the physics of superposition. According to this concept, a particle can exist in multiple states simultaneously until it is observed. For instance, it can both decay and become radioactive or not decay and remain safe. In a hypothetical scenario with a cat in a box along with such a particle, the cat could theoretically be both alive and dead at the same time.

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CHAPTER 10

TIME AND THE ETERNAL NOW

Is time constant and absolute, as it generally appears to us? Special relativity has shown conclusively that time — whatever it is — passes more slowly when you are traveling at very high velocity, a phenomenon known as time dilation. If you could take a space voyage at close to the speed of light, when you returned to Earth everyone you used to know would have aged dramatically compared to you.

Most of us would agree that time flies when we're having fun, yet the same hours drag terribly when we're in pain. Older readers will probably have noticed that, as they age, time seems to go by more quickly. Summer months when we were children contained an eternity of fresh perceptions and exciting experiences, but now they seem to disappear in a flash.

Some cultures have a cyclic notion of time, with eternal recurrences, rather like seasons, a model that has some supporters among contemporary cosmologists.* But the standard Western model portrays time as linear, somehow flowing forward in one direction.

Mystics have long spoken of an eternal now, a state of time-transcendent awareness. Einstein, in a letter of condolence to the widow of a lifelong friend, wrote, "People like us, who believe in physics, know that the distinction between past, present, and future is only a stubbornly persistent illusion."[1]

Despite such insights, most of us feel that time is real, something we move through, and that the flow of our lives from one moment to another takes place in time. We take time and our progression through it for granted.

Here I will make the following radical proposal, derived from our core proposition about Consciousness: *Everything, including what we are and what we experience, already exists — virtually and simultaneously — within the one singularity of pure Consciousness*.

This means that, even though we experience the events of our lives sequentially, all those experiences always exist virtually and simultaneously

within the infinite reality of Consciousness. These patterns become “real” for us only when we observe them. One observation after another gives the sense of sequence, and this is how our sense of time arises — in a sequence of observations by an observer.

The sense of passing time, in turn, creates a history. Every person’s history will be different, depending on their unique sequence of experiences. And this is how the individual’s sense of self takes shape.

How can this be?

We are embedded in a physical body and a universe with patterns of Consciousness that require us to observe objects and events sequentially. We experience this, then that, then this, then that. When we feel life is progressing and time is passing, it’s because the laws of nature (and of human nature) necessitate that we experience the transforming patterns of Consciousness one after another. We’re simply not built to take in everything all at once. We’re not capable of perceiving the infinite facets of life simultaneously.

The movie of life

Imagine you’re sitting at a computer ready to explore a virtually infinite number of images on its hard drive. The software allows you to choose any image you like, as long as each new image connects with the previous image. If you choose an image of a cat under a tree, the next image might show the cat sleeping, meowing, or jumping. Wind might blow through the branches and drop leaves on the cat. A bird, dog, or person might enter the scene.

As you choose the sequence of images you want to see, the images start scrolling on the screen, creating a movie, a sequence with a story. But everything this story is made of — all potential stories and histories — is already there, simultaneously present on the hard drive in non-time.

Or imagine you’re visiting an art museum where you can view a sequence of paintings as you move through the galleries. You linger at one exhibit, then a second, third, and fourth, with the sensation that time is passing and you’re seeing these exhibits in a meaningful sequence. When you arrive at a fifth exhibit, if you don’t remember the other exhibits, that fifth exhibit is all that exists for you. The earlier exhibits have no reality, but they do exist.

Our bodies and brains have limitations. The laws of nature governing Earth and the universe also place limits on us. We cannot visit all the exhibits in the museum at once. We go through a sequence of experiences that feels like a

passage in time, whereas everything — all the potentialities and actualities of our experience — already coexists in the virtual realm of the unmanifest. All are patterns within Consciousness with an eternal, virtual existence. In this realm, all the laws of nature, all that creates manifestation, all possibilities and combinations of possibilities, all coexist in completeness.

This is the eternal now, extolled by poets and seers. Everything exists all the time, now and now and now. What we will be living one hour from now already exists in that dynamic state of infinite Consciousness. What we are going to live in one year, in ten years, what we lived one year ago, ten years ago — it's all there in the museum of Consciousness, ready to be viewed.

Like our sense of time, space is also a construct of our intellect and our perceptual faculties. In fact, everything exists at the same place, which is a point and infinity at the same time. A point is nothingness or emptiness; infinity is fullness. Fullness and emptiness are the same — every point contains wholeness, totality. As the English poet William Blake famously wrote:

> To see a World in a Grain of Sand
> And a Heaven in a Wild Flower
> Hold Infinity in the palm of your hand
> And Eternity in an hour[2]

Expanding the computer analogy: You store innumerable movies on your hard drive, from which you can send them to a player. As you settle in with popcorn and snacks, the opening credits appear along with music. Soon the characters appear, a plot develops, and you're pulled into the story. Perhaps a crisis occurs. The protagonist faces a difficult choice, perhaps there are some chases and explosions, the hero escapes danger and wins the day . . . and then it's over.

All possible images, sounds, and interactions are stored on the vast drive. You watch them in a specific sequence but, if you wish, you could pick up any moment of the story from the drive. You could scan forward or rewind to repeat a funny or poignant moment. Watching it from the beginning, you feel the story is unfolding, moving from start to crisis to denouement, and for you, it is. But it's all on the memory drive. If you had enough knowledge (consciousness) about the drive's infinite possibilities, you could choose to see the images you like in the sequences you like, changing the story line at will and to an infinite degree.

I am suggesting that our lives are just like that. All possible imaginable moments coexist all the time, as on a computer drive with infinite memory, but we go through them in a certain sequence, which gives the impression of time passing with a predetermined outcome.

Transcending limitations to experience greater freedom and access all possibilities

How do we free ourselves from perceived boundaries and restrictions? By transcending in meditation — going beyond limitations and opening our awareness to the silent, expanded state of pure Consciousness, the field of infinite possibilities.

* This refers to the ekpyrotic cyclic model of cosmology.

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CHAPTER 11

CONSCIOUSNESS: THE FIELD OF ALL POSSIBILITIES

The grand field of Consciousness, pure Consciousness, experiences (mind) and knows (intellect) its individual perspectives (egos). Infinite perspectives are inherent within it. For a sense of what this might be like, think of our own experience. We think and feel that throughout our lives we always remain the same person. Yet we know that this one person, me, has been a baby, a child, an adolescent, an adult, a friend, a student, a dreamer, a lover, a fighter, someone who might have gone into other professions than the ones we've chosen. Our appearance, social roles, and physical and mental characteristics change all the time. Yet in our inner core we sense a self that remains undivided, one and unique.

In a similar but infinitely more expanded and clearer way, pure Consciousness experiences itself as one while also experiencing the infinite possibilities it can simultaneously assume.

As long as pure Consciousness maintains the awareness that everything is its Self and nothing but its Self and there are no perspectives with a sense of ego separate from pure Consciousness, nothing actually manifests. All remains pure Consciousness in its oneness, with its multiple unmanifest perspectives remaining virtual, latent potentialities.

This field of all possibilities contains within it everything that has ever existed or will or could exist, everything that can be imagined and everything even beyond imagining. Yet it is unified, nondual, peaceful, and impersonal.

All possibilities in this realm of Being means absolutely all possibilities existing simultaneously, at once, in the same instant, and for all time. There is the virtual you and me at birth, at age one, eighteen, sixty, one hundred, immortal or mortal, weak, strong, invincible, healthy, happy, sad, sick, rich, poor, and so on — all at the same time. Cars, trees, food processors, oxygen

molecules, planets, Higgs bosons, pandas, and cell phones are already all there within the vast fabric of pure Consciousness.

They are there all at once, they were there before the big bang, and they will be there during and after every future big bang, along with every possible and imaginary present, past, and future. Within this fabric of pure Consciousness are also unicorns, fairies, angels, djinn, and white elephants. There is you married to your high school sweetheart or a farmer or a king; you as a doctor, a painter, a pilot, a philosopher, the president of the United States, or the once-upon-a-time sultan of Zanzibar; you as the king or queen of the galaxy. Whatever can be imagined resides there as a potential.

These are all coexistent, virtual possibilities. Just as a computer might store millions of digital images, the ocean of pure Consciousness stores infinities of possibilities. In our lives, we run through the pictures in a certain sequence because we have certain constraints, but at every moment we could potentially make different choices leading to different outcomes. How much freedom we possess to make different choices depends on our state of consciousness. (We'll discuss this in detail later.)

Freedom of choice depends on our state of consequences

Imagine you sit at a computer whose hard drive contains an infinite number of possible life choices and outcomes, and all you have to do to create a desired outcome is press a button.

At every step in our lives we make a choice. Most of us feel restricted to a limited set of life choices, based on our circumstances, social conditioning, and beliefs. As we free ourselves from those perceived boundaries, more possibilities become available to us.

Growth of consciousness naturally results in a broader view of possibilities and thus greater freedom of choice.

In the virtual realm there is no time. All is eternal and immortal. There is simultaneous coexistence of all possibilities, like an infinite number of bits of information encoding an infinite number of virtual pictures, sounds, and so forth on an infinitely large hard drive. The pictures, sounds, and everything else are on the hard drive, but no movie is playing. The pictures could scroll in an infinite number of sequences, creating an infinite number of possible movies and outcomes. But as long as the movie is not playing, nothing happens — there is no history, no drama, no virtue or evil. All is nonlocal, field-like potentiality.

Three fundamental perspectives in Consciousness

As we'll see, this grouping into different perspectives leads to fundamentally different appreciations of reality and existence within the spectrum of the three categories of points of view, which we will call:

- *subject-referral* (self-referral) perspectives: points of view with the subject or subjects as a reference
- *object-referral* perspectives: points of view with the object or objects as a reference
- *process-referral* perspectives: points of view with the process or processes as a reference

Subject-referral versus object-referral naturally relates to subjectivity versus objectivity. These form the foundations of idealism versus empiricism. In the Consciousness paradigm, on the philosophical level, self-referral is related to Being and Amness, while object-referral is related to existing and existence. The subject is: the object exists.

As I mentioned earlier, the object needs a subject and a process in order to be acknowledged as existing. Subjects can be totally self-referral, but they need to be experienced as objects through a process of observation to ascertain that they exist. Some subjects can as if curve back on themselves through a self-referral process and see themselves as existing objects. Not all subjects have the level of consciousness required for self-referral. In all cases, an object is said to exist only for the subject observing it.

What about the process-related perspectives? The process of observation connects subject and object and thus unites them. The process is a force of

connecting and also of disconnecting. Whatever connects two entities, whether positively or negatively, involves a process. In human experience, particularly human emotion, the ultimate connecting process is love. Love can range from infinite love and absolute unity to total separation, which is complete indifference. *John>entirely indifferent to>Jane* is still in the spectrum of love but at a negative extreme.

If John and Dr. Smith are not connected at all, *John>0>Smith*, then John and Dr. Smith do not exist together as a real entity. They do not participate together in a bit of Consciousness — *observer>observing>observed* — and are not part of each other's reality.

Endless numbers of bits of Consciousness, and therefore endless realities, could potentially manifest. This is like the decoherence and many-worlds hypothesis we discussed in Chapter 5, except that here there is no need for new universes to emerge with each new bit of Consciousness. All possible bits are already there, potentially, in the unmanifest. Some bits get actualized, others remain virtual. The process-related perspectives (process-referral points of view) therefore involve the dynamics of connectedness and potential environments joining all possible subjects and objects.

In *Jane>sees>John*, John is the object. In *John>sees>Jane*, Jane is the object. Normally, however, John and Jane see themselves as subjects and prefer not to be seen as mere objects in the material sense. If they were actors in a play, they would be subjects who assume roles other than their true natures. They would be aware that the audience views them as objects of observation, as sources of entertainment. This colors their own awareness even as they know they are conscious subjects playing fictitious roles.

Note again that pure Consciousness knows that the subject, the process, and the object are its own Self and are not separate from it. Whether seen as object or subject, all is a grand field of Consciousness. Consciousness, therefore, has two fundamental aspects of its own nature:

- *oneness* (unified quality of awareness), in which one unbounded Consciousness is all there is. This is total Self-referral.
- *multiplicity* (divided quality of awareness), in which the perspectives represent different qualities and levels of consciousness ranging from fullness (in oneness) to nothing. Here the intellect can analyze pure Consciousness, experiencing its multiple aspects, each aspect with its own specificity. This is object-referral.

Self-referral, object-referral, and manifestation

As described earlier, without connectedness between subjects and objects, all remains virtual. To become real, a subject-object connection must be established via a process. Since there is nothing but Consciousness, this process involves directing awareness from a subject to an object. This is *attention* — the directed flow of awareness from a subject toward an object: in essence, directing attention from one subject to another subject with the other subject being experienced as an object. Attention is needed for an object to be perceived as real. An object is considered real only by a subject whose awareness flows to it.

We always keep in mind that every object is in itself a conscious entity — a subject. Consciousness is all there is. Subjecthood can be broad and expanded or minimal and meager. The only object that is not a conscious entity and thus never a subject is the concept of nothing — the concept of *that which is not*!

When pure Consciousness examines itself, its own attention flows to itself and thus it knows itself to be real. This is how Being comes into existence. Being comes — be-comes — from Being to becoming. Pure Consciousness is aware that there is nothing but itself, that it has a basic three-in-one structure, that it has an infinite number of perspectives, and that the three as well as all other perspectives are nothing but the One. This is the self-referral point of view.

The perspectives can also be seen from the object's point of view. The discriminating ability of pure Consciousness sees that, being all-inclusive, it can have the widest, most inclusive awareness or it can have more specific and narrower perspectives.

The intellect of Consciousness sees this process and wonders how far it can go. How narrow can the perspectives become?

There are three possibilities. In the first possibility, the perspectives grow smaller but never reach nothingness, much like a geometric sequence of reducing any number by any ratio, forever approaching but never reaching zero. In this case, the reduction continues forever.

In the second possibility, the perspectives become so small that they have no consciousness at all. This progression culminates in nothing. This would be like moving down the counting or natural numbers: after 4, 3, 2, 1, you must get zero. At a certain point, there's a jump to nothingness.

In the third possibility, the perspectives become so narrow and specific that they resemble each other, even become identical, their interactions so

restricted that they do not generate new modes of perception. They would have a semblance of infinitesimal consciousness that cannot lead to any new bit of consciousness and would again lead to nothingness.

From the perspective of pure Consciousness, nothingness is nonexistence. Pure Consciousness is never deluded by the concept of zero consciousness or nothing. Nothingness is that which is not Consciousness, but since Consciousness is all there is, nothingness is not in the realm of Being.

On the other hand, the discriminating ability of the primordial intellect sees the possibility of a concept of nothingness within Consciousness, in the ultimate outcome of the cascade. It also sees zero in the ultimate object, which is a conceptual object that has no observing ability whatsoever.

Therefore, pure Consciousness has dual points of view about the concept of nothing, of nonexistence. From the self-referral point of view, nothing is a non-reality. It is the only thing that is not Consciousness. From the object-referral point of view, nothing is a real concept and part of Consciousness, albeit only as a concept, a concept of nonexistence.

These two aspects of the same one undivided Absolute have fundamentally different implications. On one hand, the self-referral nature of pure Consciousness is unbounded and infinite since it never reaches zero. It goes on forever. It does not perceive or experience nothingness. On the other hand, the discriminating object-referral (existence-referral) aspect of this same Absolute finds a conceptual limit within itself and postulates nothingness. Where can it go from there? There is no place to go but to fold back onto itself.

This folding back onto itself is where creation (manifestation) begins. Therefore, as we'll see in the next chapter, manifestation begins with the return journey of the Absolute onto itself. This starts from nothingness, from the end point of the forward journey.

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CHAPTER 12

THE CONSCIOUSNESS PYRAMIDS: Unmanifest and Manifest

In our analysis so far, we have laid the foundation for understanding how the physical and material aspects of the universe manifest. Everything is within Consciousness, within the dynamics of Consciousness reflecting on itself and experiencing itself from different perspectives.

The concept of nothingness is one of those perspectives, but it is most bewildering. Whereas all has been about Being and fullness taking different forms with no boundaries and no limitations, now comes a concept of nothingness, emptiness, void. It is just a concept, like everything else, but this concept opens the possibility of nonexistence.

Consciousness becoming conscious knows its infinite perspectives. Nonbeing and nothing are also concepts in Consciousness. This highlights the range of possible conscious entities from fullness to all imaginable limited perspectives ending in nothingness, from infinity to a point. As we have discussed, the emergence of multiplicity from unity involves the ability of Consciousness to discriminate (the faculty of intellect) between the various characteristics of the emerging perspectives or identities (egos). These include the qualities of subject, process, and object; of silence, witnessing, and dynamism; of revealing and hiding — all in different degrees ranging from one absolute, holistic perspective of unity to a cascade of increasingly more narrow and specific points of view.

To understand some of the important concepts described below, let's first reemphasize the relationship between *subjecthood* (Observerhood) and perspective. In our paradigm, the scope of a subject's perspective defines its subjecthood. If two subjects have the same exact perspective, they are not two subjects, they are one and the same. You might object and say that when I and

my identical twin or my doppelganger or even a close friend look at a landscape, we have the exact same experience. This is not possible in the Consciousness paradigm. You and another can only see the exact same thing and have the exact same experience/perspective (bit of Consciousness) if you and the other are the same subject.

The following analogy from a common experience can help us understand what it is like to have broad versus narrow perspectives and see the range of possibilities from unboundedness to nothingness. Imagine that broadness of perspective is metaphorically equivalent to how much a subject can simultaneously experience of a landscape containing a city and its surroundings. There is one theoretical perspective in which a potential subject can see the entire landscape and all its finest details at once. Obviously, this kind of subject is not what we encounter in our daily experience. However, we can imagine this perspective as an ultimate, unbounded possibility.

Since *perspective defines the subject*, and since the supreme perspective I just described is unique, there is only one subject that can be said to have this perspective. Any theoretical subject that can have that exact same experience can only be the same subject. Transposing from the metaphor to our analysis of Consciousness, this unique perspective would be equivalent to the perspective of the personal absolute Consciousness looking at itself as the field of all possibilities.

Now, suppose there is a subjecthood that has the ability to perceive/experience only the right half of the landscape and another subjecthood that can perceive/experience only the left half of the landscape. These are two different perspectives, and there can only be two subjects that have those perspectives: one is the right side and the other is the left side. In a similar way, three subjects can experience one-third of the landscape each, and so on. An endless number of subjects are necessary to experience all the fine details of the landscape, each with their individual perspective. Some might see the districts of the city, some the houses, some the trees, some the bricks, and so on, including the molecules, atoms, and elementary particles.

The synthesis path is what puts the parts together to create a greater whole. If the consciousness of the subject seeing the right side of the landscape is joined with that of the subject seeing the left side, we get the full landscape. As the pieces of the puzzle come together, the whole picture appears. This is synthesis.

Like any metaphor or analogy, this one has limitations, but it illustrates the concept that the narrower and more restricted the perception, the larger the

number of observers. We see this in our manifest universe. Obviously, there are more elementary particles (representing, essentially, the most meager levels of consciousness — limited subjects able to sense and respond to fundamental forces only in the most basic way) than there are atoms. This is because atoms are more complex and orderly collections (syntheses) of elementary particles. There are fewer molecules than atoms, fewer cells than molecules, and so on, all for the same reason.

Metaphorically, we can compare the unmanifest to a catalog of all possible subjects. Imagine that those subjects are listed in categories based on how broad or narrow their awareness is. Under the category of the broadest imaginable awareness or perspective, our catalog will have only one entry, only one subject: unbounded pure Consciousness. The next level of subjects contains those that can see half the landscape. In our analogy, there will be two subjects in this category. And so on.

As you move in the catalog from more expanded subjecthoods to more limited ones, you are moving from wholeness to collectives with more and more specific parts, the number of subjects increasing in each subsequent category. This goes on until you reach the lowest imaginable subjecthood, which is the concept of zero subjecthood. Here there is a gap — nothingness.

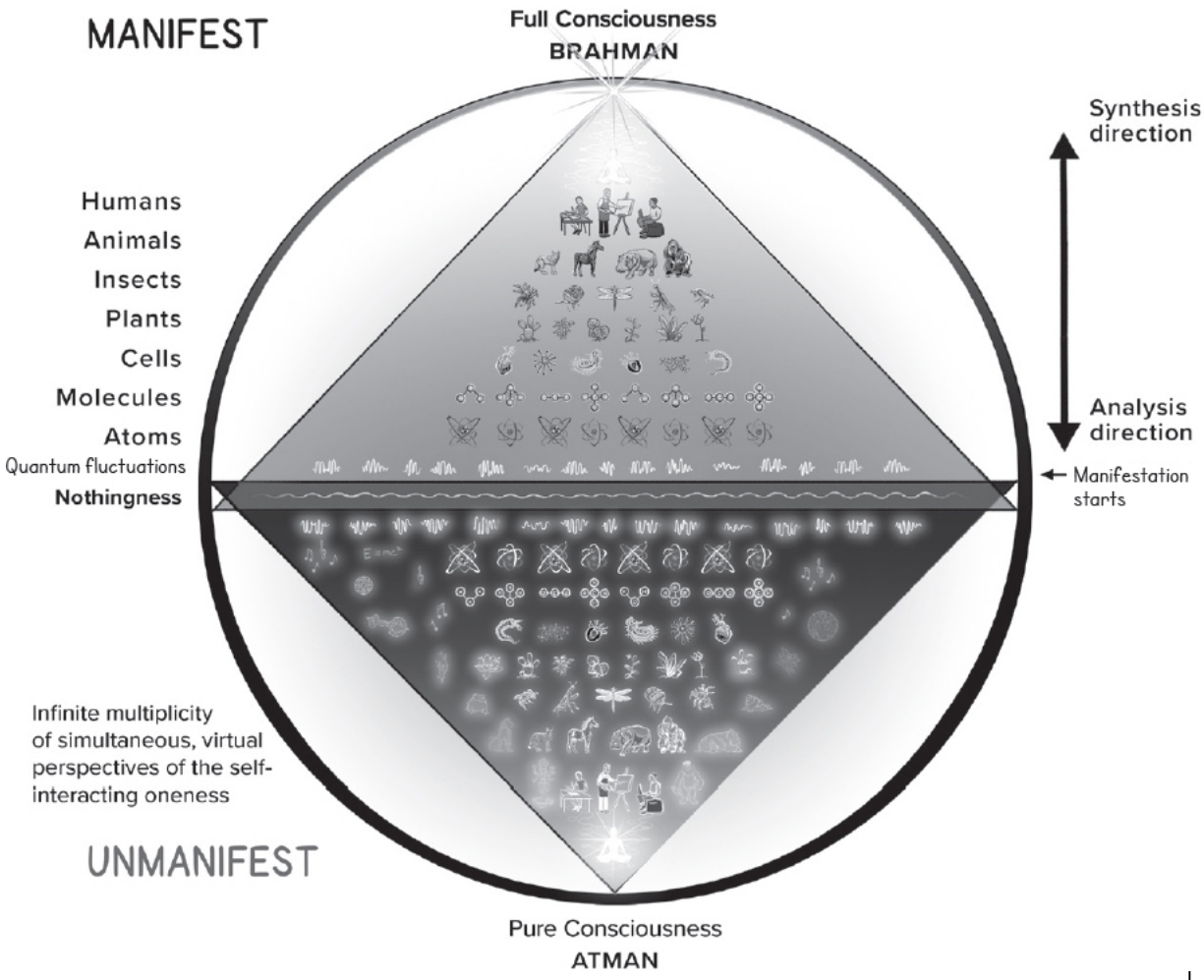
To appreciate visually the number of subjects with respect to the broadness of awareness, see the figure of the inverted pyramid. The tip of that pyramid is a single dot, representing the broadest perspective: one subject — singularity. As you move up in the figure from this dot, consciousness gets narrower and the number of subjects gets larger. Every place in the pyramid represents a unique level of perspective. Increasingly specific perspectives are in larger numbers as you move up in the figure. The inverted pyramid broadens toward its base as the perspectives grow larger in number but narrower in consciousness.

We had highlighted two realms within Consciousness: the unmanifest and the manifest. The inverted pyramid is a metaphor for the unmanifest realm, where pure Consciousness holds on to its unlimited, unbounded, all-permeating wholeness, even while it looks at itself from an infinite number of points of view. This realm reflects both oneness and multiplicity, but nothing in it is manifest. It is totally self-referral, and it is everything that is. It is nothing physical or material, so it is nonmanifest. Its existence is primary; it does not depend on its parts or anything outside itself. Both the impersonal and personal Absolute are in this unmanifest realm.

The other realm, the manifest, is all that can be experienced as material or physical. It includes all that we perceive through our senses, measure through our instruments, and experience as thoughts, imaginings, sensations, and feelings. Moving from the unmanifest to the manifest, from the nonphysical to the physical, requires the agency of the personal aspect of pure Consciousness, the personal Absolute.

So, we add a second pyramid above the first. The upright pyramid represents the manifest. Below it is the inverted pyramid, representing the unmanifest. Now we have a diamond-shaped figure made of both the unmanifest and the manifest. Notice that the area of intersection is common to the manifest and unmanifest. This is where quantum-like field effects are postulated to happen.

Consiousness: unmanifest and manifest



This diagram conveys the reality that Consciousness is all there is. The lower, inverted pyramid represents unmanifest Consciousness, where the limitless number of perspectives that Consciousness conceives of within itself are virtual and nonlocalized.

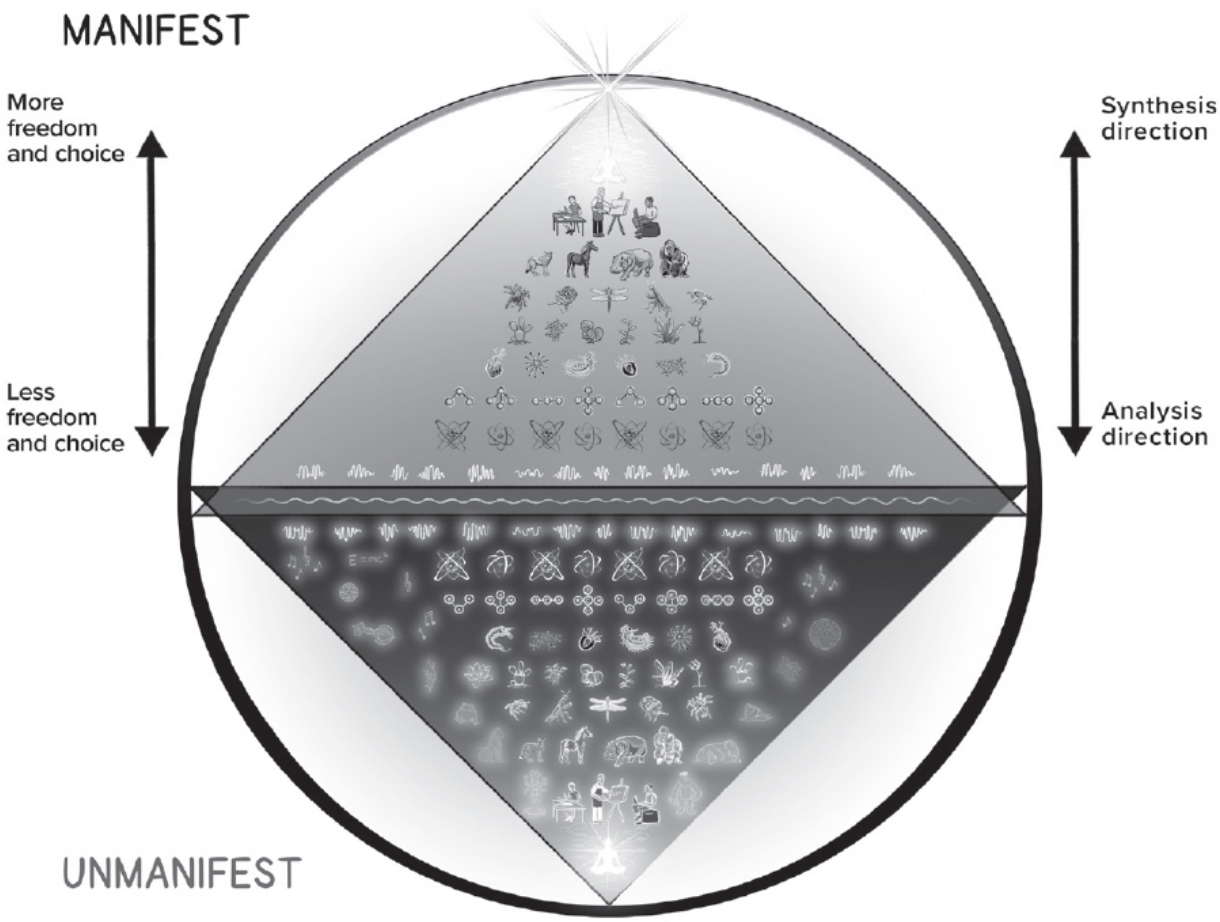
The upper pyramid represents the manifest aspects of Consciousness, where some of those conceptual perspectives are experienced as real subjects, processes, and objects.

The shared base of both pyramids identifies the virtual and nonlocalized in the process of appearing as real and localized in space-time.

The circle represents the all-permeating pure Consciousness maintaining its state of holistic balance.

The lower pyramid's bottom point represents Atman, the one Self of everyone and everything. The upper pyramid's apex represents the ultimate state of Unity Consciousness, Brahman, the experience of all possibilities, unmanifest and manifest, and the supreme knowledge that all this is Consciousness.

Consiousness: unmanifest and manifest



In the manifest, elementary aspects assemble together, leading gradually to broader perspectives, greater knowledge, and a higher ability to feel, understand, be free, and make choices, as for example in human beings.

This is the synthesis direction in evolution. It is always accompanied by the tendency to disassemble and separate the parts from the whole, which is the analysis direction, experienced as entropy. The two directions are simultaneously present, creating dynamism.

Elementary patterns and modes of Consciousness, such as cells and fine particles, possess lesser degrees of freedom and display more randomness.

In the unmanifest, all possibilities of lesser and greater freedom and little and more choice are virtual concepts, and all are simultaneously present.

Subjects in this transition area are not localized in time and space, and, therefore, they are in essence unmanifest. But they can start to be observed and get localized as objects. The upright pyramid from its base to its apex represents the evolution of subjecthood from limited consciousness at the base back to oneness at the top.

Consciousness is all there is. Both pyramids illustrate the spread of subjects: from oneness to virtual multiplicity in an analysis process in the lower pyramid, and from multiplicity to oneness in a synthesis process in the upper pyramid, which is evolution in the manifest realm. A circle has been added to represent the omnipresence of absolute Consciousness connecting everything to everything.

The tip of the lower pyramid and the tip of the upper pyramid are the same one Absolute, but with a shade of difference. The lower tip is transcendental oneness, the Self of everything, unmanifest and manifest. In the Vedic literature, it is called *Atman* ("Self ").

The tip of the upper pyramid is also the Self of everything, when the personal consciousness has experienced and known everything as oneself, including all that is manifest and unmanifest. In the Vedic literature, this is called *Brahman* — "totality."

The journey of the self from unmanifest through all manifestation highlights Atman in terms of Brahman. A classic *Mahavakya* ("great saying or utterance") from the Upanishads expresses this: *Ayam Atma Brahma* — "This Self (*Atman*) is *Brahman*."[1]

The concept of nothingness is the pivotal point, represented in the diamond-shaped figure as the region at the intersection of the bases where the two pyramids overlap. Creation manifests from there.

We started our analysis with an indivisible oneness — pure Consciousness — and discussed how by looking at itself it cascades into an infinite number of perspectives. The perspectives are not parts that come together to build a whole. Pure Consciousness is oneness and primary; it is never fragmented. The perspectives are the infinite ways of looking within the one undivided Consciousness. In the diamond-shaped figure, these untold possibilities are represented by the multitude of images in the lower, inverted pyramid.

In the manifest realm, it's the other way around. The parts make the whole. We put atoms together to create molecules and organs together to create an organism. We need bricks to build a house. In the manifest realm, the pictures that were data on the hard drive of the unmanifest start aligning one after

another. They become dynamic sequences of events that create all possible universes.

An infinite number of possibilities are in the unmanifest but not all of them manifest. Notions of freedom and determinism, good and bad, evil and virtue appear in the manifest. Emergence and submergence; transformation, construction, and destruction; regression, progress, and evolution — all are aspects of the manifest realm.

If we consider the upper, upright pyramid as representing evolution in our manifest universe, we will find the elementary particles near its base. As we move farther up the pyramid we find atoms, then molecules, cells and tissues, plants, organs, organisms, the hierarchy of the animal kingdom, humans, evolved individuals with highly developed consciousness, and so forth on a continuum toward pure Consciousness. These are the strata within the manifest realm.

The same entities exist in the unmanifest but are not seen as the material of physical objects. They are virtual perspectives of Consciousness on itself. Nevertheless, they are there as all possible and imaginary perspectives: the perspective of the dog on its master, the iron filing on the magnet, the Geiger counter on radioactive particles, a physicist on quantum mechanics, the patient on their illness, and so on.

All perspectives in the unmanifest are virtual and are seen simultaneously. In the unmanifest, there is everything and its contrary. Socrates, Gandhi, Schrödinger's cat, and every one of us humans are there dead and alive at the same time, and there is no contradiction. They are as if data stored on the hard drive of the Absolute. Not all those images will be actualized; some might never become "real."

The diamond figure of the two pyramids is just a metaphor. It isn't meant to suggest that reality has a diamond shape. Analogies have limitations, but they can be helpful for understanding. In this metaphor, moving from the apex of each pyramid toward their common base is analogous to the forward, analysis journey. The term *journey* is a misnomer in the case of the lower, inverted pyramid because, in the unmanifest realm, there is no time — all is simultaneous. Therefore, there is no place where a journey starts or ends. But the dynamism in the upper, upright pyramid can be seen as sequential and so we can speak of a journey.

Moving from the common base of the two pyramids toward their apexes is the return, synthesis journey. As you move up in the upper pyramid, you gain

larger and larger perspectives. As you climb up, step by step, you expand your awareness.

Thus, there are two general directions of movement in both pyramids. These two directions are virtual in the unmanifest, where everything is simultaneous, but they are real in the manifest realm:

- From oneness to multiplicity. This is the analysis (forward) direction, from the apexes of the pyramids toward their common base.
- From multiplicity back to oneness. This is the return (synthesis) direction, from the common base of the pyramids toward their apexes.

In the lower, inverted pyramid of the unmanifest, the forward journey can be said to proceed at infinite speed. The perspectives get narrower until the intellect of Consciousness reaches the limit of its discriminating character and postulates a non-real, nonexistent entity: nothingness. The movement of Consciousness, which we call *attention*, nonetheless upholds nothingness, and that nothingness becomes the turning point.

The flow of attention on the return journey from conceptual nothingness at the base and moving toward the apex (the synthesis direction) also takes place at infinite speed. At every point in the lower pyramid, there is a simultaneous move from the base in the direction of the apex that balances the move from the apex toward the base. Thus, the movement of attention is balanced. Any individual value that tends to pop out of the Absolute is immediately balanced by an equal and opposite value, and all remains unmanifest.

But there is a virtual dynamic, a flow, a silent hum, a reverberation hidden within the unmanifest. This is what we could call the *memory within the Absolute*. It is this memory that secures oneness in multiplicity within the unmanifest and also in all manifestation. The underlying memory maintaining oneness and perfect balance is the reason why for every action within the manifest there is an equal and opposite reaction.

Why and how manifestation occurs within Consciousness

When the discriminating ability of Consciousness sees multiple perspectives, it asks what it is like to be in the shoes of each perspective. Since all perspectives are myself, to fully know myself I need to know them on their own level. What if I wholly engage myself in my specific perspectives? What if I free them and give them a life of their own?

It would be like an actor wanting to be so true to the roles she plays that she becomes totally absorbed in them, deeply feeling and enacting their hopes, fears, joys, and expectations. This is what great actors do. They make us forget they are playing roles — their characters feel totally real.

What if the actor becomes so fully engaged in the role of Aida, Aphrodite, or Juliet that she forgets her own identity, literally believing she is Aida, Aphrodite, or Juliet?

This is what occurs when pure Consciousness puts itself completely in the shoes of its multiple roles, giving itself to each role unrestrictedly. Each of its different perspectives and their unlimited number of potential combinations appear to be real, as if on their own. Some have very narrow consciousness, others higher consciousness. Some are big, some small, with possibilities of all kinds and forms. Some resemble each other, others contrast with each other, merge with each other, cancel each other, or build on each other. They interact, creating what look like independent subjects, objects, and processes — building, through their unending interactions, our universe and all real and imaginable universes.

All of these appear to be real and independent of one another. They are the atoms, molecules, mountains, trees, animals, and humans, as well as ideas, fictions, mythological figures, machines, airplanes, and all that can ever be imagined. Each has its own ability to sense, feel, or experience. An electron senses the electromagnetic field. An apple falls to the ground in response to gravity. A tree extends its roots in response to the soil and its contents. A dog smells its food. Children run to their parents.

All these are waves of Consciousness. Consciousness is no longer just a flat, unbounded ocean. Now it is also waves that are seen as if separate from the ocean, each with its own perspective. What was pure potentiality — merely concepts for the intellect — now appears as an infinite number of real subjects, processes, objects, and their combinations. And so Consciousness manifests.

Knowledge of reality differs in different states of consciousness

As pure Consciousness eclipses its unbounded awareness in endless ways, an infinite number of observers with limited points of view emerge. These observers experience reality, some from the narrowest perspective, some from the most expanded perspective, and everything in between. The Absolute

appears to be manifest in different ways to different aspects of itself. Knowledge and experience of reality differ in different levels and states of consciousness. Reality is different for atoms, trees, monkeys, and human beings.

All of these are forever Consciousness entities. Since there is nothing but Consciousness, whatever is imagined or conceived is a Consciousness entity. Could atoms, molecules, stones, or mountains be illusions? The answer is a resounding no. They are not illusions because they are perspectives within Consciousness. These perspectives appear to humans as atoms, molecules, stones, and mountains. To other observers they might appear as energy fields or distortions in space-time geometry. Their appearance will depend on the observer and the processes connecting observer and observed.

For humans, the processes include seeing, hearing, and the like, with specific ranges of sensitivity for each sense. Of all possible perspectives, humans can appreciate only a limited number because we are a bundle of modes of Consciousness with particular ranges in ability to perceive other modes of Consciousness.

Nothingness, the vacuum, gaps, and the big bang

In our paradigm, evolution in space-time starts at the end of the analysis journey and the beginning of the synthesis journey, when the personal Absolute postulates nothingness. At this juncture, there is an observer (silent pure Consciousness), a process (dynamic pure Consciousness), and nothingness as a postulated object.

Nothingness, however, is nonexistence. The analysis path, which revealed all the possible facets and perspectives of pure Consciousness, now at last reveals the concept of nonexistence. Nonexistence is not real in the Absolute. For that matter, none of the perspectives can be said to exist as real in the Absolute, since each perspective has its opposite value that balances or cancels it.

As the process of manifestation is about to start (and I am speaking conceptually), the Absolute is still operating in the field of infinities, so there is no space-time. Nothingness, therefore, has no dimensions. When the speed slows down and opposites separate, the door opens for existence to become real. All perspectives now have the possibility to manifest. With manifestation, even nothingness (nonexistence) is perceived as real. This is

what we call *the void* or *the vacuum*. Gaps of time and space between objects appear as real.

Nothingness thus sits at the interface between the unmanifest and the manifest and between the analysis and the synthesis journeys. In the diamond-shaped diagram, this is the region at their bases between the two pyramids. In the Absolute, both the analysis journey (infinity to nothingness) and the synthesis journey (nothingness to infinity) happen simultaneously at infinite speed.

In the manifest, both continue to happen but at various speeds that are less than infinite. Seen from the unmanifest side (from the self-referral perspective), nothingness is just a notion, a perspective like everything else. However, from the manifest side (from the object-referral perspective), infinite silence and infinite dynamism endlessly bubble up into manifestation. Cosmologists, as outside observers looking back at the origins of the universe, might describe this as an endless number of big bangs constantly emerging like bubbles in effervescent water.

According to the Vedic knowledge of creation, there is no moment of time that can be said to be the beginning of creation because every moment of time is the time of creation, and the source of this process is in the eternal continuum of the self-interacting dynamics of Consciousness.

Forces of separation and assembling

Manifestation begins, metaphorically speaking, with a reversal of gears, from forward to reverse, from primarily analysis to primarily synthesis, with nothingness as the neutral position between the two. The analysis direction (or analysis drive) is a force of separation, while the synthesis direction (or synthesis drive) is a force of assembling and pulling together.

Forces manifest before objects do. The primordial, most basic, limited, and elementary perspectives in Consciousness, perceived in physics as the elementary particles, are the first to manifest as objects. To become individual entities, the elementary particles must first exist as separate from one another and certainly separate from their antiparticles. Otherwise, some interactions could annihilate them or make them decay. Or they could stay unmanifest. This separation is accomplished by the forces of repulsion. In the Consciousness paradigm, all the repulsive forces are part of the analysis drive. This includes dark energy — the cosmological force responsible for the apparent universe’s accelerating expansion.

Reducing interactions between particles generates the perception of gaps between them. Gaps become the perceived space or vacuum separating one entity from another. As the force of separation continues to act, the gaps (space, vacuum) appear to be expanding. This phenomenon could be an underlying mechanism of what cosmologists describe as inflation after the big bang during the early stages of our universe.

By contrast, the synthesis drive generates all the forces of attraction, including gravity. These forces of attraction, driven on the return journey toward gradually fuller and fuller consciousness, include dark matter, the cosmological force responsible for keeping the galaxies together and for accumulating matter to form galaxies. By bringing individual elements together, the synthesis forces create bigger perspectives. As larger perspectives become more orderly, they rise in the upper pyramid toward fuller consciousness.

The coexistence of the repulsive and attractive forces participates in the phenomenon of vacuum fluctuations. The fluctuations between the synthesis forces and the analysis forces continue in all time and space as the processes of emergence and submergence, manifesting and unmanifesting, birth and death. The gaps between them are what we perceive as gaps in space between coexisting objects or gaps in time between sequentially manifesting objects.

Pure Consciousness, with its fullness and all its perspectives from infinity to a single point, remains eternally unchanged. What comes into existence in manifestation is an infinite number of perspectives, each having its own scope, dimension, depth, width, breadth, and abilities of awareness. Reality is different for different observers. It depends not only on the observer but also on the process and the observed. This is universal relativity.

Both analysis and synthesis forces participate in manifestation

The fundamental dynamic underlying all forces in the physical universe lies in the nature of pure Consciousness, which, as we've seen, is to be conscious. To be conscious of itself is to know itself. Self-knowledge is the ultimate, spontaneous, inherent, automatic driving force within the nature of Consciousness or Being. This begins as an analysis/forward journey (knowledge of the parts) and continues with the synthesis/return journey (knowledge of the whole).

The analysis journey manifests as forces that separate, divide, and repel. These forces play a significant role in the phenomenon of entropy. The synthesis journey, in contrast, manifests as forces that combine, unify, and attract. These play a role in assembling larger and larger structures. Both kinds of forces — the attractive and the repelling — act together to keep balance and create increasingly orderly structures reflecting greater wholeness.

On the synthesis journey, if disorderly groupings emerge, the analysis forces disassemble them, enabling them to reassemble in more orderly structures. The separating forces of analysis aid manifestation because they keep equal and opposite aspects apart so they do not annihilate each other. Thus, the separating forces contribute fundamentally (and unexpectedly) to creation in manifestation. Without them, the universe would instantly vanish in a cosmic crunch.

Within the unmanifest Absolute is a perfect template that serves as a guide. In the manifest, however, there is freedom, and the steps toward the apex of the upper pyramid may involve trial and error. Moving toward that upper apex brings greater fulfillment because it involves expansion of consciousness toward ultimate Self-realization, the experience that “I am pure Consciousness and Consciousness is all there is.”

Growing fulfillment provides the motivating force that favors ascension up the pyramid. This is the inner force that propels us to desire more of everything: more experience, more understanding, more love, more happiness, more fulfillment.

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CHAPTER 13

PERSPECTIVES IN THE MANIFEST

In our paradigm, whatever happens anywhere influences everything else in the entire field of manifestation.

This universal entanglement is because all multiplicity emerges from the underlying unity of pure Consciousness. And this unity is never undone. Perfect overall balance is always maintained. Appearance of change and imbalance is due to limited perceptions within limited considerations of space and time.

In the unmanifest, all information is shared instantly because in that grand field there is no space or time, no distance. That absolute field is spontaneously aware of all its perspectives and automatically maintains its infinite overall balance, even in its manifest universes. The difference in the manifest realm is that actions and reactions are experienced within the constraints of space and time. The term *overall* is thus fundamental because endless oddities can appear and disappear, but all are always balanced.

This also means that if one particle manifests in one universe, its antiparticle must also manifest somewhere. If one particle changes spin, its corresponding particle must also change spin. Whatever manifests must be balanced in one universe or another. If this were not the case, the total of all manifestations would be imbalanced and not in tune with the perfectly balanced field of pure Consciousness. This does not mean, however, that everything virtual in the unmanifest must appear as real in the manifest.

This one grand field of Consciousness is all there is, and it cannot be what it is not. Both in perspectives and in the interactions of perspectives, the sum of all there is in all possible universes must add up to the silent, neutral, peaceful, single field of pure Being. When one thing changes or evolves in one direction or another, the entire manifest realm must adapt and balance this change.

So, we go beyond the physics definition and generalize to give an all-encompassing meaning to entanglement, defining it as the interconnectedness of everything with everything, simply because the oneness of the totality is upheld even while appearing as many.

Entanglement is not easy to detect or experience at all levels of manifestation because its mechanics act in the underlying unified aspect of nature beyond time and space, whereas manifestation is relative, influenced by the parameters defining space and time.

To have a rough sense of what entanglement means in practical terms, flip a coin. If tails is up, then heads is down and vice versa. Now, flip it with the intention of knowing what lands on the downside. Once the coin lands, obviously you don't see what's on the downside; you just look at the upside. However, since the downside interests you, when you see tails, you think heads and when you see heads, you think tails. Since the coin is one coin and not two, it is obvious that tails will be on the other side of heads.

Our little experiment is simplistic, even trivial, but it makes the point that the totality of creation is one appearing as many. It is like a coin appearing with two sides yet being only one coin. When observing the coin toss, you will take a little longer (a few milliseconds, for the sake of argument) to say heads is on the downside than to say tails is on the upside. This is because your nervous system must always acknowledge what you see on the upside first and then come to the nearly instantaneous conclusion that because tails is up, heads must be down. Obviously, this doesn't mean that it took longer for heads to appear on the downside. It is just a matter of your ability to appreciate what you are exposed to from one perspective or another.

Consciousness: the one appears as many

This illustration is a metaphor about simultaneity in the unmanifest and the sequential nature of experience in the manifest. When you toss a coin, you know it's one coin with two opposite sides flipping at the same time. When you see the visible side, you immediately know what's there. This is like the unmanifest where parity is instantaneous, a oneness where every aspect of Consciousness is always balanced by its equal and opposite aspect.

In the coin toss, it takes fractionally longer to deduce what's on the hidden side. This is like the manifest, where there's always some gap separating objects and events. We experience these gaps as space and time. At larger scales of space-time, the underlying oneness is most often overlooked.

Since all manifestation requires the triple *observer>observing> observed*, what appears as real is relative to the characteristics of the observer, the observing process, and the observed. This is why reactions to some actions appear to take a long time before they manifest and others manifest more quickly. It depends on the relative conditions and whether there are other influencing factors that make the reaction more complex. A simple particle-to-particle entanglement differs from the entanglement of two complex human beings, each with complex histories.

Nonetheless, every action has an equal and opposite reaction, not just locally but universally. When you move your finger, the whole universe reacts to it. In most cases it will be imperceptible, for all practical purposes negligible, but it's there, and combined with other actions and reactions it may be significant. At the other end of the continuum of significance, moving one's finger to press a particular red button could unleash nuclear Armageddon. Happily, not all finger movements have such potential.

Action and reaction

Dissociation and dissipation are in the analysis direction, while increased orderliness and complexity are in the synthesis direction. Eating and digesting an apple are part of the analysis process. Building complex and highly orderly cells, tissues, and organs from the digested ingredients and energy of the apple are part of the synthesis process.

A question arises: Since evolution and growth of orderliness do happen — as, for example, in plants, animals, and humans — does this mean that there must be equal and opposite destruction to maintain balance between order and disorder? Does this imply that a good action must be balanced by a bad action? If every action has its equal and opposite reaction, if I help my neighbor should my doppelganger in some other universe hurt their neighbor to maintain balance?

Actions and reactions need not be mirror images of each other, even if the forces they generate are equal and the synthesis/analysis balance is maintained overall. A good action done by *A* toward *B*, for example, is balanced by a good action going back from *B* toward *A*. This is how action and reaction are balanced rather than assuming bad actions are the necessary reactions to good actions. *As you sow, so shall you reap*. The action of carefully planting a mango seed and watering it is balanced by the reaction of growth of a mango tree. When we throw a ball, the reaction is for the ball first

to resist the force of throwing and then to fly in the air by absorbing and reacting to the force created, and not for the ball to symmetrically go back in the opposite direction.

Balance and evolution in the manifest

The manifest universe starts in the lap of singularity, which is fullness of Consciousness having the entire range of all possibilities but nothing physical or material. Manifestation starts from the void, at the very bottom, the base of the pyramids. At this level, balance is between the fullness of the unmanifest and nothingness in the manifest. This is the interface between the unmanifest with all possibilities, operating at infinite speed, where singularity prevails, and the beginning of manifestation happening at slower speeds, where nothingness and maximum force of separation prevail.

Here the analysis force is at its maximum, driving separation in space and time. The balance at this point (let's call it the point of the big bang at the beginning of manifestation, just one step up from singularity) is skewed such that the analysis journey is at its culmination while the synthesis journey is barely starting.

The primary, overarching force to counter and balance the maximum analysis force is the attractive, assembling, synthesis force driving evolution toward the ultimate goal: the experience of unity within the manifest universe. Thus, manifestation proceeds on the synthesis journey from lowest consciousness at the bottom of the upper pyramid toward the highest experience of Unity Consciousness at the top.

Any action in the assembling, attracting, unifying, synthesis direction naturally balances the analysis forces of separation. Actions that balance the entropic forces are positive and good. In performing such evolutionary actions, we are fulfilling the need for balancing the forces of separation that are required initially for manifestation to occur. Unifying actions are good because they are in tune with and support the natural evolutionary power. We describe them as actions in accord with natural law or, from a religious perspective, actions in accord with the will of God. Growing momentum in the synthesis direction — faster growth toward unity — results from actions that uphold balance, but such actions are not necessarily balanced by equal and opposite reactions.

The effects of actions and reactions are often unfathomable because actions and transformations in both directions — analysis and synthesis — can be

harnessed for evolution in the manifest realm. The forces of separation tend to predominate in the manifest universe; otherwise, there would be no manifestation. This is why, according to the second law of thermodynamics, entropy in the universe naturally increases overall.

At the same time, evolution to greater orderliness can thrive locally. There are enough powerful forces in the universe that swallow orderliness to maintain balance. Black holes, for example, are major devourers of orderly structures. A recently discovered supermassive black hole, 34 billion times the size of our Sun, swallows nearly the mass of one Sun per day. The balancing effects between actions and reactions become more complex and sophisticated as we rise in the upper pyramid, in part because of ever larger numbers of past positive and negative actions whose mixed reactions are yet to manifest in space and time.

Different entities have different qualities of awareness

Whether unmanifest or manifest, all subjects, processes, and objects are Consciousness entities. They can be tiny, limited aspects of Consciousness or expanded, holistic aspects of Consciousness. In our paradigm, an electron sensing an electromagnetic field is a tiny, narrow aspect of Consciousness becoming aware of (i.e., sensing) another aspect of Consciousness, that is, the magnetic field. The experience of gravity, for another example, would be a different mode of awareness.

When I use the term *object*, I mean an aspect of Consciousness being perceived as an object by another aspect of Consciousness (a subject) through a process (yet another aspect of Consciousness). I emphasize this because as we consider the field of the manifest, we may think that physical objects are different from each other. They are different superficially, but fundamentally they are expressions of the same one Consciousness.

When we direct our awareness to one object or another, we call that *attention*. Attention involves the process of an observer coming together with an object and then shifting their awareness to another object. This process allows various perspectives to emerge. For manifestation to occur, the shifting of attention from one object to another (one perspective to another) must happen at finite speeds. Before exploring this, let’s look at what happens and what manifests.

All physical, material, mental, emotional, social, and spiritual phenomena are manifestations of Consciousness. They are the various perspectives of

Consciousness getting to know itself from different points of view. When both are looking at the same object, an observer with limited consciousness will see it from a narrow point of view, whereas another observer with higher, wider consciousness will see it from a broader and more inclusive point of view. One person sees the Sun moving in the sky from east to west. Another person understands that Earth rotating around its axis creates this illusory perception.

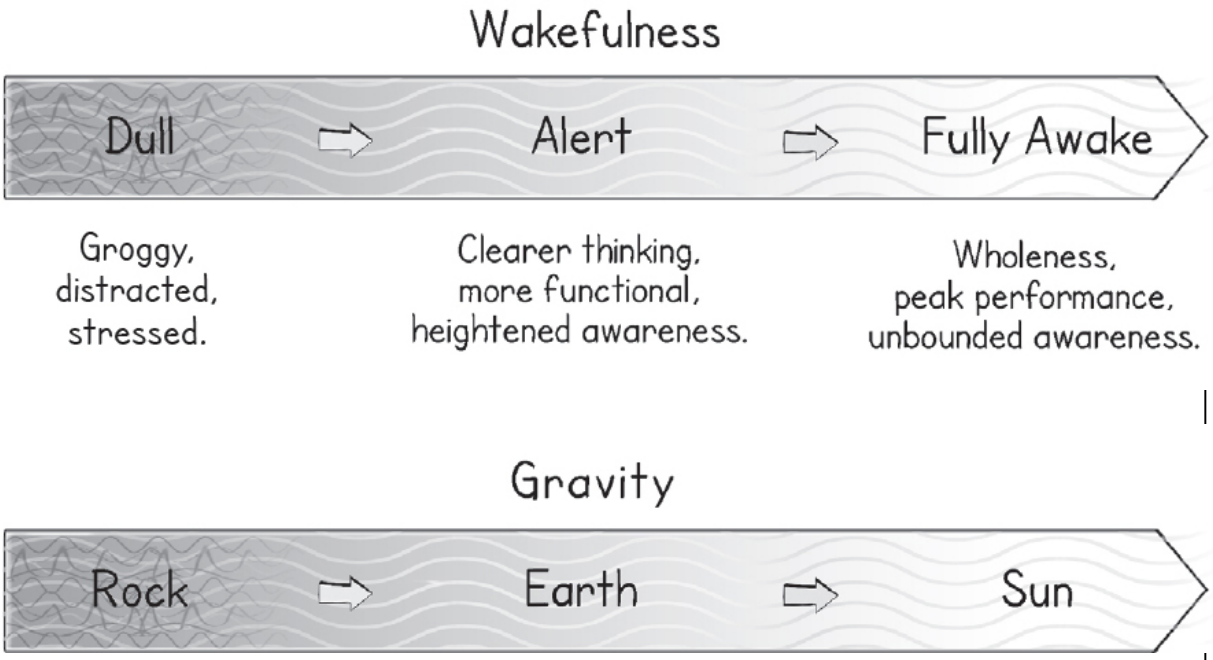
Perspectives manifest as an uncountable number of specific qualities with specific values. For example, a boulder exerts more gravitational force than a pebble. Gravity reflects the quality of drawing attention or awareness. The boulder and the pebble have different abilities to draw attention, reflected in the strength of their gravitational pulls. Awareness and attention manifest — with variously complex qualities and quantities — as gravity, electricity, chemistry, biology, psychology, spirituality, and so on.

Thus, in our paradigm, attention can be qualified and quantified. The quality of attention depends on the complexity and orderliness of the underlying perspectives. The quantity of attention that an object attracts depends mostly on the number of elements that combine to create the object.

Just as things have specific weights or electrical and magnetic characteristics, so we say that things — trees, animals, people — have particular capacities and qualities of awareness or attention. Indeed, characteristics such as weight and electrical attraction and repulsion, among many others, are themselves manifestations of the various qualities and quantities of awareness and their interactions on the synthesis and analysis paths.

A stone detecting gravity is the stone’s awareness of gravity. Obviously, the stone does not seem to have any self-awareness. It has no sense of what gravity is or how it works and no ability to choose a course of action. Nonetheless, we say it has awareness (albeit extremely narrow and limited) because it detects gravity and responds to it (although, again, it has no choice).

Qualities and Quantities of Consequences



Everything is a perspective in Consciousness. Different perspectives express different **qualities** of Consciousness, which themselves are perspectives in Consciousness, and these qualities are expressed in different **quantities**. For example, the structure and dynamics of the perspective we call a brain express a quality of Consciousness we call wakefulness. For a particular brain, the complexity and orderliness of its structure and functioning determine the quantity of wakefulness it expresses — its personal state of consciousness.

Gravity is another example of a quality of Consciousness expressed by perspectives we call massive objects. The gravitational effect of a particular massive object — the quantity of gravity — depends on the degree of that object's interaction with the curvature of space-time: less for a rock, more for Earth, and a lot more for the Sun.

All possible qualities and quantities of Consciousness are already present in the unmanifest field of pure Consciousness as virtual perspectives. A quality or quantity becomes manifest when Consciousness entertains that particular, limited perspective on itself as a specific, individual bit of Consciousness.

What are the tiniest quantities of awareness? These would be what physicists call elementary particles. These particles might also have different qualities of awareness, which we might designate as the four forces of nature: gravity, the weak force, the strong force, and electromagnetism.

When we talk about people, we might say that they have an enlightened consciousness or they are in a deep sleep state of consciousness or that they acted like a child today or have a heart of stone. These are descriptions of qualities and quantities of consciousness. It's like saying that, in terms of weight, the apple weighs 200 grams. Thus, in the manifest, Consciousness is qualifiable and quantifiable: different values or degrees of personal consciousness.

Varieties of consciousness

It's difficult to accept that a stone is made of Consciousness because we commonly believe that consciousness is all-or-nothing — either you have human consciousness or you have no consciousness. But we're now describing shades and grades of Consciousness. In the manifest realm, consciousness is not all or nothing. Consciousness spans all possibilities, from the ultimate unbounded field of Consciousness — pure Consciousness — through the entire range of perspectives to the potential zero value of Consciousness. The zero value of Consciousness is a concept of nonexistence and non-real nothingness.

Atoms and stones do not have humanlike consciousness. They lack nervous systems and most likely have nothing approaching self-awareness. With animals, it's a different story. Animals have awareness, in some ways less developed than that of humans. Different animals display different qualities of personal consciousness. For example, at least nine species of animals (including elephants, apes, whales, and dolphins) recognize themselves in a mirror. Yet dogs and cats and other seemingly intelligent species do not show this capability.

Taking this a bit further, trees do not seem to have anywhere near the quality of awareness of animals, although there have been documented cases in which trees and plants appear to have reacted in some observable and measurable ways to the presence of certain people or objects. Much less than this, presumably, is the awareness possessed by a stone.

Yet our theory states that all are phenomena of Consciousness. Some are very limited, such as a stone experiencing gravity and falling to the ground.

Presumably, the stone does not say to itself, “Oh, I am falling. I am going to hurt myself. What will happen to me? What can I do about it?”

We can assume that the stone has no self-awareness, no awareness of the consequences of falling, no awareness of pain, and no choice except to fall according to the physical laws of nature — in this case, gravity. The stone simply *feels* gravity, but we can surmise that the feeling is not like that of a human or a plant or any other organic entity. It must be on a simple, mechanical, most nonhumanlike level of *experiencing* the force of gravity.

But the earth and the stone, like everything else, are made of Consciousness. This is like saying that a fence, a car, a plane, and a robot can be made, all or in part, of aluminum. Aluminum is the common substance of their composition, but the objects themselves are radically different in shape, structure, purpose, and function.

Why should we not expect that there exists an infinite range of awareness or consciousness from the simplest, such as the awareness of the pull of a physical law, to the most sophisticated and complex, such as the profound self-awareness or self-consciousness experienced by humans?

A stone reacting to gravity is a stone’s perspective on gravity, reflecting awareness of gravity, albeit very limited, bordering on non-awareness, the narrowest of perspectives. At the other end of the spectrum is fully developed awareness, the ultimate perspective of supreme knowledge and understanding of all there is, was, and will ever be about life, creation, manifestation, dissolution, and all the secrets of the universe and all universes, all possibilities, virtual and real, in one simultaneous and holistic awareness. Between these extremes are cats and dogs, trees and planets, humans, and so on.

Human perspectives are among the most complex and sophisticated. A human perspective can be a feeling of joy or sadness, pleasure or pain, love or hope. It can be an opinion about capitalism or socialism, science or religion, the taste of a strawberry or a saltine. Human perspectives are varied. Some are narrow, such as *I feel thirsty*, while others are broad, such as *I plan to create world peace*. Some perspectives emanate from many perspectives coming together. For example, it takes innumerable cellular, electrical, chemical, biological, physiological, mental, and intellectual perspectives to be able to say, *I see a flower*.

Thus, manifestation is a relative experience. It depends on who is experiencing what. It’s relative to the triple of observer, process, and observed. Subjects and objects are various aspects of Consciousness. The

processes of Consciousness represent ways that different subjects may direct attention to different objects. As subjects, processes, and objects come together to form bits of Consciousness, subjects conclude that the objects are real and exist in a manifest universe.

A highly complex, orderly entity such as a human is itself made of other complex entities, each a triple comprising its own observer, observing, and observed potential. Each of these less complex entities continues to play its role as part of the group to which the entity belongs. Take the triple *Jane>sees>her dog*, for example. Part of the process of seeing involves light getting reflected from the dog to Jane's eyes. The cornea, lens, and retina of the eye, the visual cortex, and the brain are complex entities on their own. Each reacts or detects light in its own way.

Jane>sees>her dog happens through the agency of a very broad range of consciousness or conscious phenomena. These phenomena differ significantly from one another. For the cornea's molecules, the light is an electromagnetic event. The lens of the eye focuses a ray of light. The cells of the retina experience electrochemical events that are transmitted to the primary visual cortex.

None of these individually perceives a dog. None can know what a dog is. Yet all these events working in concert with the brain's cognitive mechanisms allow Jane to experience seeing her dog. Jane is a bundle of simple and small and large and complex patterns and networks that make her who she is. These are bundles of perspectives, and they change with every experience.

Whatever we experience changes us

Some changes are minor, others can be major and create fundamental transformations in Jane. The experiences Jane goes through will modify all her potentialities, transforming her Observerhood, Observinghood, and Observedhood.

Whatever we focus our attention on grows stronger in our lives. This is the result of the reinforcement of specific modes, patterns, and networks. Every experience modifies us. The good time enjoyed on a nice summer vacation is a consciousness experience and does not vanish when the vacation is over. It's integrated into us, even if it's only a tiny perspective added to all the perspectives that make us who and what we are.

Consciousness gives every perspective its own independent life

We have been describing the perspectives as emerging from conceptual subject–process–object relationships. Now we are saying that pure Consciousness can make an abstraction from the fact that every perspective is part of the grand field of Consciousness, attributing to every perspective and every bit of Consciousness its own independent life.

It's one thing to know that the individual perspectives are just aspects of the ocean of Consciousness and another thing for each perspective to be appreciated as a totally independent entity. Since each perspective is a part of pure Consciousness, and if pure Consciousness is to know itself fully, then pure Consciousness must know all its parts. Therefore, pure Consciousness must fully adopt the point of view of each perspective.

This means that Consciousness must give each perspective freedom to perceive and interact with other perspectives as well as it can. Freedom is necessary for manifestation.

Before we delve deeper into freedom, let's reemphasize the key point, which puts us at the crossroads between the unmanifest and manifestation: Pure Consciousness can abstract every perspective from its participation in the grand field of the totality or oneness of Consciousness.

This statement highlights that pure Consciousness, in the process of manifesting, hides in an endless number of ways its unbounded, all-encompassing reality. It means that Consciousness with an uppercase *C* appears as an infinite number of consciousnesses with a lowercase *c*.

Freedom is necessary for manifestation

Returning to the topic of freedom: There are not only multiple points of view from the one Consciousness but also individual consciousnesses fathoming newer perspectives from their own completely individual and narrow points of view. For this, each individual consciousness must be able to experience, know, decide, and behave on its own individual level rather than on the unbounded level of pure Consciousness or according to any preordained plan.

Knowing the perspectives on their own levels means discovering how they would interact with each other based on their characteristics. This is why their actions and interactions cannot be fully predetermined. They must be allowed to exist as free, independent subjects, processes, and objects.

Giving freedom to the perspectives allows the absolute Consciousness to know them fully on their own levels and thereby know itself more completely.

Pure Consciousness enters into the individual, specific perspectives and adopts their limitations. Its holistic, absolute, unbounded nature is eclipsed, hidden in different identities. This is how the Absolute comes to know itself comprehensively.

Thus, freedom is not a bonus or luxury but a necessary aspect for manifestation.

If everything were perfectly automated, everything would be perfectly predictable and there would be nothing left to be known or experienced. This would certainly be true for the Absolute, particularly because it operates at infinite speed. The Absolute would know everything here and now. Manifestation would be useless — it would not bring any new knowledge. There would be no novelty, no creativity. Giving freedom in the different aspects of manifestation is necessary for manifestation to be meaningful.

Perfect robots might exist in some universe, but they would be boring. They would have no individuality, no independence. They would have no say. They would be totally predictable. We would have nothing to learn from them.

It is obvious that the parts of wholeness acting on their own do not necessarily represent wholeness or how wholeness "thinks" and "acts." It is the personal Absolute, "curving onto itself," that gives its parts individuality in freedom.

The emergence of individual consciousnesses, each perceiving reality from its own narrow point of view, is more spontaneous than intentional. When we say that Consciousness slows its speed, adopts narrow perspectives, hides its true unbounded nature, and gives freedom to its parts, we are not saying that Consciousness deliberates and decides whether or not to do all that. Rather, this is what it takes for Consciousness to know itself fully. It is part and parcel of the nature of Consciousness to be conscious and know itself. Consciousness is a field of all possibilities, and those include infinite as well as slow speeds, narrow as well as broad perspectives, unbounded as well as limited freedoms, and the unmanifest as well as the manifest. And Consciousness must know all its possibilities.

There is only one overarching, spontaneous, uncreated law or rule: Whether manifest or unmanifest, whether slow or fast, whether appearing free or bound, the overall sum of all there is must add up to the one unbounded,

silent, ever peaceful, pure, always-equal-to-itself ocean of Consciousness. This law constrains what can manifest at one time or another in one universe or another, because the unmanifest must always remain the totality, the field of all possibilities coexisting.

Thus, the freedom of each perspective is limited. But by navigating individually within the constraints of the manifest realm, the limited perspectives reveal experiences and knowledge that a preset order cannot reveal. Without freedom, the individual parts (the individual consciousnesses) would behave mechanically and predictably. They would add nothing new. Manifestation would be meaningless.

Freedom and choice

Freedom, like awareness, is not the same for every aspect of manifestation. The narrower the awareness, the smaller the range and degree of freedom: when awareness is limited, freedom is limited. An electron might experience only electricity, with an exceedingly limited range of possibilities. The electron doubtless lacks even the faintest awareness of freedom and choice. It has the most basic level of freedom — to spin up or to spin down. It has no idea that it's spinning up or down, no idea of its momentum and direction, no sense of the forces acting on it, no choice to spin one way or the other. Yet it still has certain degrees of freedom.

However, elementary particles display fundamental uncertainty. The quantum world is characterized by unpredictability. At these subatomic levels of awareness, there is no ability to choose, and freedom without the ability to choose leads to randomness.

We often ignore the fundamental difference between freedom and choice. An entity might have a specific range of freedom but not enough consciousness to be able to choose. A particle's awareness might be limited to detecting another particle or the field in which it is operating; it cannot consciously choose to do anything.

Because it has some freedom but cannot make choices, a particle displays random behavior. Its characteristics can be influenced by any number of variables. We've discussed entanglement, describing how all aspects of manifestation are fundamentally interconnected and influence each other. Binding or associating a particle with other particles or fields creates new entities that can have different degrees of freedom. Based on their vibrational modes and characteristics, the newly connected group of particles can enter

into more or less stable bonds, oscillate and vibrate in harmony with each other, and modify other particles' degrees of freedom. Newly formed particles have new freedoms and possibilities. Together, they could have more degrees of freedom and more random behavior or they could constrain each other.

You can mold clay into countless shapes. In doing so, you move every particle of clay. The clay particles push each other in all directions in response to the forces you apply and their inherent characteristics. Yet the clay particles are all connected — to each other, to your hands, arms, brain, mind, and awareness. They all are entangled in the broader sense of that term. Nonetheless, the particles retain some tiny, random freedom that influences the entire mass of clay as well as your hands, arms, brain, mind, and awareness.

Entropy versus self-preservation

Left on its own, the clay will eventually disintegrate. The tendency for everything to dissipate is called *entropy*. Entropy is not a force in itself but rather the tendency for the constituents of any object to separate randomly. With no energy to maintain the structure, random physical forces pull the components apart. Build a sandcastle on the beach, check it the next day, and you'll see entropy in action.

In the Consciousness paradigm, entropy is the natural analysis direction of movement that underlies the entire field of manifestation — moving from higher toward lower aspects in the upper pyramid. The individual aspects of manifestation, in contrast, strive as much as they can to maintain themselves — to "fight" entropy.

Obviously, entities at the lower levels of the pyramid, with no sense of self, cannot conceive of self-preservation. They show less resistance to the entropic tendency — not because they're not conscious but because their consciousness is limited and they lack self-awareness. The higher an entity is in the pyramid, the more developed its selfawareness and the stronger its desire for self-preservation.

The sense of self evolves as we go from individual components to complex entities. A single particle has no self-awareness, but large, complex groups of particles — a human being, for example — can have a profound sense of self. This sense of self stems from the collective consciousness of the particles and their orderly structure making up a human being. It is a special "society" of

particles leading to a society of cells. A society of cells creates organs, and a society of organs creates a human being.

Human societies create their own collective consciousness. Although the individuals in a society may not be fully aware of their collective consciousness, they often have a sense of collective identity, a bigger self that can inspire them to fight and sacrifice themselves for their nation or religion.

Ultimately, when we experience the ultimate Self of everything and everyone as a single grand field of Consciousness, our individual life rises to cosmic and universal life. As we will see when we discuss higher states of consciousness, in Unity Consciousness self-preservation expands to a universal perspective.

Karma and constraints on freedom

Because of entanglement, and because any entity can operate only within its own reality and ability, there are constraints on awareness and freedom. Entanglement ensures perfect orderliness in the unmanifest realm. This constrains freedom in the manifest realm but does not totally negate it. There are two main kinds of constraints: • *inner*, due to the limits of an entity's awareness

- *outer*, due to entanglement and to an entity's own actions and choices

Whether making choices consciously is possible or not, this outer constraint is always in force. It includes karma. The Sanskrit word *karma* refers to action in general, but commonly the term is understood as the repercussions that our actions have for us.

These constraints on freedom add complexity, and they drive the emergence of orderliness in the initially chaotic field of creation and manifestation. As noted, every action has an equal and opposite reaction. Constraints on freedom result largely from one's own actions, leading to reactions that force us into certain conditions.

We may be free to choose specific actions, but we are not free to determine the results of our actions. The results depend on various constraints emerging from entanglement, past actions, present circumstances, even the unfolding future. This complexity makes karma unfathomable. These constraints ultimately create order (and sometimes disorder) and are part of what we call *law*.

The freedom and orderliness paradox

We highlighted freedom with the possibility of disorder on the one hand, and entanglement with an overarching perfect order on the other hand. This raises an important question: How is it possible to have randomness and freedom while perfect balance is maintained by total entanglement? How can every action have an equal and opposite reaction alongside various degrees of freedom with the possibility of disorder?

Indeed, all aspects of manifestation are interconnected, ensuring balance, maintaining wholeness always equal to itself. This is how, for example, neutrality of electric charge is maintained. A new positive charge cannot suddenly spring up without a corresponding negative charge. Particles have antiparticles. Matter has antimatter. Infinite correlation (entanglement) underlies the principles of action and reaction, cause and effect, and the concept of karma.

How, when everything is inextricably connected with everything else and balance is always maintained, is freedom possible? The answer is that manifestation happens at less than infinite speeds. This implies different dynamics in the manifest realm than in the instantaneous unmanifest realm. In a classical manifest universe such as ours, space and time emerge when the shift of attention slows down. The gaps of time and space separate particles from antiparticles, matter from antimatter, and cause from effect. Reactions to actions are experienced as happening at speeds slower than infinite: they are not instantaneous, they take some time.

This experience of slower speed with separation in time and space is necessary not only for the process of manifestation but also for the experience of freedom. Separation gives the impression that action can happen without reaction. If my action appears to me to hold its own, even for a short lapse of time, without being instantly canceled by an equal and opposite reaction, then I can feel during that time that I freely created something new. I can even create a temporary, apparent disruption.

Thus, disorder and disruption, too, can happen and be experienced as real. In due time and space, however, throughout manifestation, every action gets its reaction: *As you sow, so shall you reap*. Chaos and catastrophe can be experienced temporarily and locally in the relative field of manifestation, but overall order and balance are inexorably maintained.

In addition, the reaction balancing any action in the manifest universe can take different forms depending on many factors, including context,

complexity, sophistication, level of freedom, choice, intention, the space and time in which the action occurs, when the reaction unfolds, and the position and direction those factors generate in the pyramid.

The more basic levels, lower in the pyramid, are balanced by equivalent, more basic kinds of reactions. For example, when one elementary particle changes its direction of spin, another particle it's entangled with automatically changes its spin in the opposite direction, maintaining balance. When a positively charged particle is created, it is always accompanied by a negatively charged particle.

The balance, however, does not always have to be in exactly the same or similar manifestation. Potential energy, for example, can be exchanged with mechanical energy. A heavy object falling on a glass table can break it. Water falling over a dam can create electricity. If you push an open door, it moves. The movement of the door is the nearly immediate reaction to the push. If the movement changed the spin of some particles, this will be balanced automatically by changes in the spin of the respective entangled particles. If you push a closed door, the reaction is what you feel in your hand as resistance. In short, the balancing reaction does not have to be, in every case, of exactly the same kind as the action.

I want to highlight this point. When a door opens somewhere, this does not mean that a door must close somewhere else. An apple seed utilizes nutrients, water, and the Sun's energy to sustain itself and grow, resulting in an apple tree. Harnessed energy from the Sun and other sources creates greater order: an apple tree. Those energies would otherwise have been dissipated in the powerful entropic or analysis direction. The apple tree then bears apples and seeds, multiplying itself, thus contributing to the nourishment of other species that gather more and more orderliness in the synthesis direction.

Isolating the parts to understand the whole: the physicalist approach

As we have seen, with freedom in the manifest, the potential for local disorder and disruption becomes real even though the overall orderliness, balance, equanimity, and infinite peace of the unbounded ocean of Consciousness are maintained. There is apparent and temporary loss of wholeness in fully engaging with the parts, but this is how the parts are experienced as real on their own rather than as virtual aspects of the whole.

In modern science, we do this all the time. We try to isolate the individual components of a system to understand how they behave. For example, when we wish to understand how the heart works as an organ, we study the different constituents of the heart, such as its muscle and nerve cells and their characteristics as cells independent of their function together. Otherwise, there are too many variables, and we cannot tell precisely what does what and what exactly leads to or creates what. In isolating one part, we feel we can understand the nature of this part in itself and how it behaves by itself. We then try to put the parts together to create an understanding of the wholeness.

By looking at its parts (its perspectives) as independent entities, pure Consciousness knows itself more fully. It is important, however, to note a fundamental difference between the analogy of the heart and pure Consciousness in the unmanifest realm. The different cells and tissues come together to make a heart. The heart cannot exist without its parts, but its parts can exist without assembling to create a heart. With pure Consciousness it is the other way around: pure Consciousness is primary, and its parts cannot exist without it.

Movement: the high-speed emergence and submergence of bits of Consciousness

The manifest realm of reality is like a movie in which images come and go at high speeds. Change, transformation, and particle speeds are like movie projections at different frame rates; beyond a certain frame rate, the human brain interprets the movie as continuous rather than a series of still images.

Like that, the movement of an object in the manifest is not a continuous flow from one place to another; it is a sequential appearance and disappearance of a virtual entity (say, an arrow) in different positions as experienced by an observer or a group of observers. The arrow does not leave the Absolute to appear in the relative field of manifestation. The virtual arrow as a concept or perspective in the Absolute remains eternally in the Absolute. It manifests and becomes real only in sequential bits of Consciousness.

The observer sees arrow *X* at position *A*, then at position *B*, then at position *C*, *D*, and so on. This stream of Consciousness related to positions *A*, *B*, *C*, *D* . . . happens at high speed, creating the illusion of continuous movement. This is equivalent to the observer and their environment sequentially collapsing the wave function of arrow *X*, making it manifest at different positions and creating the sensation of the arrow moving in space.

This answers Zeno's paradoxes without contradicting his and his teacher's assumptions.* The sensation of objects moving in time and space, for example, led Zeno to a paradox: how can an object be located in a specific place at a given instant in time and yet be moving? Movement should mean that at no time is the object in one place. This led to several other related paradoxes by Zeno.

The Heisenberg uncertainty principle partly addresses this question, but I believe the real answer lies in the Consciousness paradigm, which says that objects are virtual perspectives within pure Consciousness that do not become real or manifest at any moment by themselves. Rather, reality is made of composites or bits of Consciousness, that is, triples — *observer>process> observed* — and movement is the sequential emergence and submergence of bits of Consciousness at a high speed, giving the impression of smooth continuity.

The manifestation of physical and natural laws and the role of intention

As complexity and freedom increase, so do constraints. Constraints, together with the synthesis and analysis forces, manifest as the physical and natural laws that shape our universe. These constraints and laws put brakes on the rapidly increasing freedom but do not stop it entirely.

Higher consciousness brings greater awareness of the self and the directions in which the synthesis and analysis forces move things. At these higher levels of awareness, evolution is certainly not limited to physical activity. Thoughts and cognitive reasoning play increasingly important roles in shaping one's overall orderliness of being. This is where intention comes in. Being aware that there are different paths toward greater fulfillment focuses the intention purposefully. Of the many possible paths, those with the least friction and requiring the least effort are selected by Consciousness. This follows the principle of least action, which underlies all manifest phenomena.

How personal consciousness evolves in the manifest

The unbounded ocean of pure Consciousness knows itself by "curving onto itself " and cascading into an infinite number of narrower perspectives. Its discriminating power perceives nothingness at the end of this analysis forward journey and thus begins a synthesis return journey. In this perfect

orderliness, at infinite speed, all cancels out and nothing emerges. To know its own parts on their levels, it slows down its speed of attention and “squeezes itself ” in every part, hiding its infinite nature and giving freedom for each part to be independent. This is manifestation.

The smaller parts, with their limited awareness, are randomly attracted to each other by the synthesis forces and thus create all possible combinations, most of which do not evolve. They may even end up scattered by the general entropic analysis tendency.

When various perspectives come together in an orderly manner, they create newer, more comprehensive perspectives. Orderly groupings of particles and atoms can give rise to complex molecules, cells, tissues, and organs. These have basic ways of interacting with each other, starting with electrical and gravitational forces but also extending to “higher” structural, chemical, and biological interactions relating to their complexity and orderliness.

More complex and orderly structures can be aware of more and, we might say, can understand more. This is what happens in the synthesis direction — from the bottom toward the top of the manifest pyramid, from simple elements to complex, orderly entities. Broadly speaking, therefore, as we move upward on the synthesis path toward higher levels of the pyramid, two mechanisms are at play: increased variety and complexity of perspectives along with increased orderliness.

When we’re repeatedly exposed to newer perspectives, they become consolidated, allowing us to see reality from a more comprehensive point of view. As these perspectives become orderly and organized, the level of awareness rises.

This is how experience and understanding enrich awareness and broaden perspective. The higher in the manifest pyramid, the more complex and orderly the quality of attention becomes. This can range from simple electrical and gravitational types of attention to complex and elaborate levels of awareness, such as the ability to comprehend intricate social, economic, and cultural issues; to experience compassion, love, and devotion; to fathom the workings of the universe and endeavor to understand the ultimate nature of things.

These higher values of awareness emerge throughout the entire spectrum of manifestation. Consciousness itself is all-permeating; it is not an emergent quality. Yet, the quality and quantity of awareness gradually increases as evolution in the manifest universe proceeds. Picture a solar eclipse, in which

the darkened face of the Sun is gradually revealed, photon by photon, wave by wave, until the Moon has fully passed and we experience the full sunshine.

What determines the quality and quantity of a specific state of attention? Two things: first, the quality and quantity of the elements that join to constitute the perspective; second, how these elements are arranged, the structure they collectively create. The more diversity, complexity, and orderliness in the structure, the higher the potential for a richer and wider quality of awareness and attention, a higher quality of personal consciousness.

By *orderliness*, I mean the extent to which a specific arrangement — out of all possible arrangements for a set of elements — expresses the ultimate nature of wholeness, which is the grand field of Consciousness. An arrangement leading to a richer perspective has greater orderliness, whereas a narrower perspective has less.

The Consciousness paradigm defines higher perspectives as being higher in the manifest pyramid and thus having a broader and more complete point of view of the ultimate reality, being closer to the ultimate truth. This is what we call *higher consciousness*.

Feelings and emotions on the synthesis and analysis journeys

Feelings and emotions are colors of awareness. How do they arise? An expanded awareness — higher in the manifest pyramid — can assess in which direction the self is moving, coloring the awareness. Moving in wrong directions (downward in the manifest pyramid) creates shades of dissatisfaction, sadness, and suffering. Moving in positive directions (upward in the manifest pyramid), preserving and expanding the self, creates brighter contentment, pleasure, happiness, and fulfillment.

Food, sex, and knowledge are naturally accompanied by pleasure and happiness because they give protection, improve mental and physical condition, and ensure the preservation and evolution of the individual and the species. Whatever threatens, damages, or destroys the individual self or the broader social self creates fear, pain, and suffering.

A feeling is more comprehensive than a thought. It involves an overall appreciation of the quality of one’s state of awareness. When you say you’re happy, you mean that your state of awareness is that of happiness. This means

you assess your situation or direction as supporting your self-preservation and self-expansion.

Feelings, while a good overall reference, are not always accurate because they are subjective and relative. You might feel you're moving in the best direction, but because of limited awareness, you may miss better possibilities. The greater the awareness, the greater the potential for purposeful decision-making and fulfillment. This is where the intellect — our discriminative ability — comes into play. Purposeful feelings and intellect naturally grow with greater awareness.

Feelings are predominantly about the self and the synthesis direction. Even when we feel for others, the feeling is about putting ourselves in another's shoes and seeing the other as ourself. We feel pain for another's loss as if it were our own loss and feel happiness for their gain as if it were ours. A negative feeling toward others is also motivated by some concern or fear that they might cause loss to you or someone close to you.

Feelings operate predominantly on the synthesis journey, endeavoring to unify as much as possible and raise the self to higher awareness. This explains why we seek more experiences and novelty.

Love: the glue of the universe

Among all feelings, the strongest is love. The most powerful synthesis force, it unifies and binds. Love is the glue of the universe, the living presence of pure Consciousness within the space-time reality of the manifest. As the poet William Blake wrote, "Eternity is in love with the productions of time."[1]

If two elementary particles strongly attracted to each other could have feelings, they would feel love. All processes that connect any subject to any object reflect synthesis forces, and if the subject and object could have feelings, it would be love. Fundamentally, the opposite of love is not hatred but indifference or non-attraction.

Any of us can experience pure Consciousness

How does human consciousness emerge? The answer is that your awareness is a collection of a very large number of perspectives organized in an orderly manner. These include the perspectives of every one of your particles, atoms, molecules, cells, groupings of cells and their collective assemblies into organs, organ systems, and finally your entire body.

The human body is a highly complex and orderly set of individual perspectives. If we modify these perspectives, we change our overall awareness. Some disturbances, such as injuring a finger, have minor influences on the quality of our awareness. Others, such as damaging the brain, can cause much more substantial changes in awareness.

This does not mean that the nervous system is an independent physical entity that creates consciousness. Consciousness is all there is, and pure Consciousness remains forever unchanged. In its various roles, however, Consciousness appears as cells, tissues, organs, and so on, and their relative complexity and orderliness give rise to higher or lower levels of individual consciousness. Evolution from lower species to higher species is all about the growth of personal consciousness. In the synthesis journey, awareness rises toward the top of the upper pyramid as perspectives widen and their improved organizations manifest as increasingly complex physical structures.

We humans have evolved to such a degree that we can experience pure Consciousness directly. This means that human physiology, mind, and intellect have reached such a high degree of complexity and orderliness that we can fathom the highest level of the pyramid. Human awareness can go beyond, or transcend, the limitations of specific thoughts and experience ultimate wholeness.

Instead of a piecemeal approach to raising consciousness, the human mind can experience pure Consciousness directly by diving inward to the ultimate Self, which is the Self of everyone and everything. The Transcendental Meditation technique allows us to achieve this experience easily. By facilitating the direct experience of pure Consciousness, Transcendental Meditation offers a shortcut to expanding awareness in the direction of Unity Consciousness. This will be our topic in Chapter 18.

But first, in the next chapter, let's review what we've learned so far about the Consciousness paradigm.

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* Zeno was a disciple of Parmenides, who founded the Eleatic school of philosophy in the fifth century BCE. Parmenides and Zeno believed there was only one Being and everything else was an illusion. Zeno's famous paradoxes were a form of argument subsequently known as *reductio ad absurdum*. They intended to show that certain seemingly common-sense assumptions about reality are wrong because they lead to absurd conclusions.

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CHAPTER 14

FUNDAMENTALS OF THE CONSCIOUSNESS PARADIGM

Consciousness is all there is. Consciousness appears as the universe and all it contains. The One is also the Many. We have discussed how this is so — how forces, energy, frequency, wavelength, particles, movement, attraction, and repulsion emerge and take shape, and what leads to both order and entropy, to thermodynamic laws, physical matter, and the entirety of creation and evolution.

Whether we consider the unmanifest or the manifest, certain fundamentals remain true under all circumstances. As a reminder, I'll list them here:

- All is consciousness.
- To be is to be conscious.
- Non-Consciousness is nothing.
- To exist is to be observed as an object by a subject in a process.
- Objects exist only for the subjects observing them.
- The triple *subject>process>object* defines a bit of Consciousness.
- One bit of Consciousness is one perspective of Consciousness.
- In manifestation, for a particular observer only a bit of Consciousness can be described as real; everything else is virtual.
- Subjects, processes, and objects outside a bit of Consciousness — that is, not being observed by an observer — are virtual.
- A bit of Consciousness that is instantly annihilated (balanced) by an equal and opposite bit of Consciousness is considered virtual.

- The analysis/forward and synthesis/return journeys operate in both the unmanifest and the manifest realms.
- Infinite correlation (entanglement) with overall balance is ultimately maintained in both the unmanifest and the manifest.

Differences between the unmanifest and the manifest

UNMANIFEST	**MANIFEST**
Beyond time and space.	In time and space.
Has fully unbounded awareness.	Has an endless number of separate individual qualities and quantities of awareness.
Is a field of all possibilities always here and always now.	Has individual possibilities with constraints in space and time.
Oneness predominates — pure Consciousness getting to know itself by exploring different perspectives on itself.	Diversity predominates — multiple individualities, each on a path toward realizing wholeness, oneness.
From the unmanifest perspective, the manifest is unreal; the unmanifest is real.	From the manifest perspective, the unmanifest is virtual; the manifest is real.
From the unmanifest perspective, the physical and the material are nothing but Consciousness.	From the manifest perspective, the physical and material are not experienced as expressions of Consciousness.
Operates at infinite speed.	Operates at finite speeds.
The emergence and submergence of perspectives (bits of Consciousness) is perfectly orderly.	Endless individual sequences and groupings of perspectives can be orderly, disorderly, or even chaotic.

UNMANIFEST	MANIFEST
The twin journeys — the analysis/forward journey from fullness to nothingness and the synthesis/return journey from nothingness to fullness — are simultaneous, since time does not exist.	Starts from nothingness and proceeds through an infinite number of routes back and forth on the synthesis and analysis paths, happening within time.
In the unmanifest, the flow of the analysis journey from one to many has parts (perspectives) occurring within the one wholeness.	In the manifest, the flow of the analysis journey from one to many has limited wholes (perspectives) dividing into other more limited perspectives.
In the unmanifest, the flow of the synthesis journey from many to one has wholes becoming other wholes, all participating in the one wholeness.	In the manifest, the flow of the synthesis journey involves a gradual building up of greater and greater wholes, parts coming together to create wholes that are more than the sum of their parts.
In the unmanifest, the concept of nothing exists as a virtual entity, but nothing cannot be said to exist.	In the manifest, both nothing and the concept of nothing can appear to exist.

The heart of the model

Now let's review the main points of the Consciousness paradigm.

We started with the most basic consideration: the very nature of Consciousness is to be conscious, conscious of the only thing that exists to be conscious of — itself. This first perspective is the primordial bit of Consciousness: *Consciousness as observer> Consciousness as process of observing>Consciousness as object.*

Next, we said that Consciousness observes itself observing itself and thus occupies each of the three roles in that primordial first bit. Immediately and

reflectively, four more perspectives arise within Consciousness:

- Consciousness seeing the entire first bit
- Consciousness seeing itself as an observer
- Consciousness seeing itself as the process inherent in seeing itself
- Consciousness seeing itself as an object

Simultaneous with the arising of these four bits, three faculties of cognition emerge within Consciousness: *ego*, by which it is aware of the unique identities of each of its three roles; *intellect*, by which it discriminates the differences among those three roles; and *mind*, by which it observes its totality and moves among its different perspectives.

Each new perspective generates additional perspectives as Consciousness continues to observe itself observing itself. This process produces a cascade of perspectives of possible bits within Consciousness. What had been the observer or the process may become the object of observation and so on. Thus, all possible modes, patterns, and networks of Consciousness are generated within the imagination of Consciousness.

These perspectives are conceptual, *virtual*. They are not real bits until Consciousness assumes the limited perspectives of particular observers for whom the true nature of the observer, the process, and the object as aspects of the totality of Consciousness is hidden. This is *manifestation*: perspectives manifesting in the awareness of Consciousness that are real in themselves without regard to the totality of Consciousness that they truly are.

As Consciousness's attention "moves" from one real perspective to another real perspective, the "previous" perspective becomes once again virtual, always existing virtually in Consciousness, always perceived by Consciousness as one of its concepts but not perceived as real in itself unless Consciousness is assuming that moment of limited perspective.

We might ask the questions: *Why* does Consciousness hide its totality from itself and manifest — that is, what impels manifestation? And second, *how* is manifestation possible?

Consciousness: a simultaneity of perspectives

Mary sees herself from three different perspectives, yet she is the same one person. Like that, the one Consciousness, because it is conscious, sees itself from three different perspectives: observer, process of observing, and object.

These perspectives generate additional perspectives as Consciousness continues to observe itself. Thus, all possible modes, patterns, and networks of Consciousness are generated within the imagination of Consciousness. These perspectives are conceptual, virtual. They are not real bits until Consciousness assumes the limited perspectives of particular observers for whom the true nature of the observer, the process, and the object as aspects of the totality of Consciousness is hidden.

This is manifestation: many perspectives manifesting in Consciousness that are real in themselves without regard to the totality of Consciousness that they truly are.

We have said that it is the very nature of Consciousness to be conscious, to experience, to know itself, and because Consciousness is all there is, all that it can know is itself. In this knowing, Consciousness experiences itself unreflectively. But, simultaneously, Consciousness reflects on itself, and differentiation of perspectives appears to it within its singularity.

The unbounded imagination of Consciousness conceives of every possible moment of limited experience for every possible locus of awareness, from the most infinitesimal particle to the most highly evolved being. Its ability to enter and assume all those limited perspectives is easily understood as the greater power including the lesser. Universal awareness includes the lesser power to experience limited perspectives already imagined by the universal Consciousness: this is *how* manifestation is possible. And the process of manifestation is compelled by the necessity of Consciousness to know itself thoroughly: this is the *why* of manifestation.

Were Consciousness not to exercise its unlimited power of experience and know both the perspectives on itself as aspects of its totality and the limited perspectives on itself unconnected to its totality, Consciousness would not know itself thoroughly. So, the *how* and the *why* of manifestation — the play of Consciousness — reflect *its unlimited power* and *its unbounded curiosity*, respectively.

In summary, Consciousness in its unmanifest realm knows its unbounded awareness, and through manifestation it gets to know what it is like to have limited awareness of all kinds.

I should note here that in everything I have just described, I do not mean to imply that Consciousness has a sequential "arising" in the unmanifest to become aware of itself and find ego/intellect/ mind and so forth. The language I've used is, of course, sequential. It has to be — that's the nature of any language. But the reality it's describing is a simultaneity. Consciousness does not go through a process in time to have virtual perspectives and then to manifest.

As we'll see in Chapter 18, human development to higher states of personal consciousness culminates in Unity Consciousness, in which all of manifestation is experienced and understood as Consciousness: every entity in manifestation, while maintaining its limited perspective, is also known to participate fully in the totality of Consciousness.

At first glance, this seems paradoxical, even impossible. But for any human being it can be a living experience. This is what we will be discussing: how it is possible to develop our personal consciousness in the direction of unity and

begin to enjoy the unlimited freedom, creativity, balance, and peace of pure Consciousness itself.

Why we can be confident in the Consciousness paradigm

The Consciousness paradigm profoundly explains our experience of matter and multiplicity as the product of the one Consciousness thoroughly knowing itself.

It does not detract in any way from the insights and useful technologies of the empirical sciences. Phenomenal things and their relationships are already present in the virtual world of the unmanifest memory of Consciousness. Thus, the Consciousness paradigm both preserves modern science and contributes to resolving some of its most puzzling enigmas, notably the measurement problem and the problem of action at a distance.

In the measurement problem of quantum theory, aspects of matter exist simultaneously in different states and settle into a single state only when observed or measured. This is exactly what the Consciousness paradigm describes: as a prelude to manifestation, Consciousness imagines every possible perspective for every object, perspectives that do not manifest until Consciousness assumes a particular, limited perspective in which the object is seen as real.

The problem of action at a distance involves entangled particles, each of which responds to changes in the other regardless of their distance apart. In the Consciousness paradigm, those particles — indeed everything — exist virtually in the unmanifest realm beyond space and time where there is no distance between anything. The alignment of entangled particles is an instance of the underlying nature of Consciousness to always maintain harmony and balance among all its perspectives within the virtual realm of its imagination.

We will now explore higher states of consciousness and their significance for human flourishing. The enlightenment that the paradigm offers is a natural state of freedom, competence, peace, and contentment — an unshakable foundation for an individual life well lived and for all of us working well together to meet today's serious challenges.

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PART III

Higher States of Consciousness

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CHAPTER 15

TRANSCENDENTAL CONSCIOUSNESS: Experiencing Pure Consciousness, the Self (Fourth State)

If the truth about life — and existence itself — is that Consciousness is all there is, and if we can support this assumption intellectually and conceptually, then we want to ask: Is there a way to directly confirm this? Since we are conscious beings, shouldn't we be able to confirm this from our own experience? Not just grasp this reality intellectually and conceptually but know it through direct perception? And then confirm the authenticity of that experience objectively, as well as its practical benefits and applications for individual and social well-being and flourishing?

In the three ordinary states of consciousness — waking, dreaming, and sleeping — we do not seem to have direct access to this truth, if it is indeed the truth. In sleep, we are conscious of nothing. In dreams, we live vicariously in a world of illusory objects and fantastical events, sometimes with effortless superhuman powers such as flying. Even in the waking state, what do we really know? Objects. Stuff. We live in a world of things and events, but where is consciousness? We are conscious of the things we perceive but not of consciousness itself. Indeed, usually when we experience an object, the object dominates and the experiencer falls into the background. Thus, for most people, the notion that *Consciousness is all there is* is difficult precisely because it can seem counter to our lived experience.

However, many traditions describe states of consciousness that are "higher" than the three "normal" states of deep sleep, dreaming, and waking

— higher in the sense that we have greater experiential access to the truth of how things really are. The idea that evolved individuals throughout history have attained higher states of consciousness is a long-standing theme of global culture. The Vedic tradition, as brought to light by Maharishi, delineates higher levels of human development with special clarity. And this idea has now entered the scientific canon, albeit not yet in a fully explained way.

In this chapter, we at last step into the fascinating and inspiring area of higher states of human evolution, particularly as described by Maharishi, the preeminent exponent of Vedic knowledge in our age. As we'll see, it is remarkable how both the scientific, physics-based model of the structure of nature and the traditional (especially Vedic) explanation of the nature of consciousness, including its gradual and ultimate unfoldment in Unity Consciousness, correspond so elegantly with the proposition that Consciousness is all there is.

Even though enlightenment has been a major theme of spiritual teachings and philosophical thought for centuries, only in recent decades has Western science begun to consider that there could be substantially more to life than the daily cycle of wakefulness, sleep, and dreaming, which constitute the full measure of reality for most people. Only recently have scientists considered that there could be higher degrees of insight, creativity, capability, and happiness.

Starting with the unconscious, as postulated by Sigmund Freud, Carl Jung, and other early twentieth-century thinkers in psychology, through the mid-century human potential movement and its popularizing of peak experience, peak performance, the flow state, and other notions of optimal functioning, Western science has been moving toward recognizing the higher capabilities of human being, knowing, and doing. One obvious reason for this opening to new horizons has been the increasing availability in the West of Asian systems of knowledge, especially Buddhism and yoga, and the teachings of the Vedas, from which, historically, both yoga and Buddhism are derived.

These ancient schools of thought and practice share the understanding that there is an ultimate state of human psycho-spiritual evolution, with terms such as *enlightenment*, *nirvana*, *satori*, *moksha*, *realization*, *Self-realization*, *liberation*, and so on, and that on the path to this highest state the aspirant passes through a succession of stages or levels of awakening.

Different systems of thought as well as different thinkers have classified these stages and constructed models to describe what they are and how they come about.

Despite these efforts, anyone who has read or studied teachings about enlightenment has discovered that the definitions and descriptions vary widely and may even be contradictory to a frustrating degree.

Seekers of truth often start by asking: Who am I, really?

Some schools of thought teach that there is ultimately no self and that the highest good is to realize this. A seemingly opposite view holds that there is indeed a big Self, all-encompassing, and the highest goal in life is to awaken to this reality and live it as one's daily truth. (The word *Self* in this sense is traditionally written with an uppercase *S*, to denote a qualitative distinction between the limited, finite, and ever-changing ego personality, or self, and the Self of the unbounded, ever-the-same pure Consciousness.)

Yet these two apparently contradictory views are the same. Saying that there is no self means that, ultimately, every "small" self is nothing other than an aspect of the one unbounded field of pure Being, the ultimate Self of everything and everyone. This means that having only the awareness of an individual ego is due to a limited, narrow perspective on reality. The ultimate reality is that every ego is in essence the transcendental Being.

Some people have a real passion not only for growth but also for attaining the pinnacle of human awareness, the highest happiness, the greatest universal love, the supreme awakening. For them, the question of enlightenment is far more than academic curiosity, it is a deep and compelling force motivating their lives. For such people, the clearest possible definition of the goal and the path to reaching it is of vital and compelling interest.

In our time, Maharishi made a pioneering contribution to human knowledge by integrating the ancient Vedic knowledge of consciousness with modern, objective, scientific methodology. Following his university training in physics, he spent thirteen years in service to a great spiritual master in the Himalayas with intense focus on gaining enlightenment. Since Maharishi's time, of course, others have taken up the enterprise. Hundreds of books have been written and conferences convened to study and discuss the nature and evolution of consciousness in the light of modern science.

A central pillar of Maharishi's comprehensive system of thought, which he called *Vedic Science*, is a framework that delineates seven states of

consciousness, with clear definitions of each as well as the procedures and practices that promote growth from one higher state to another. We will examine each of the seven states in this and subsequent chapters. I list them here:

1. Deep sleep
2. Dreaming
3. Waking
4. Transcendental Consciousness
5. Cosmic Consciousness
6. Glorified Cosmic Consciousness or God Consciousness
7. Unity Consciousness

We can think about the progressive unfoldment of consciousness in terms of how much the object value of awareness and attention predominates in our experience versus how much the subject value — the observer — remains present and is not forgotten as we experience a specific object. Keep this in mind as we discuss each of the seven states.

Any state of consciousness involves the confluence of a subjective mental state (awake, asleep, dreaming) with a combination or constellation of physiological and neurological characteristics. For any state of awareness, mind and body go inextricably together. Thus, if there is such a thing as higher states of consciousness, each would have to be characterized by its own unique set of subjective, psychological parameters correlated with objectively measurable physiological patterns of arousal and function. We now know this to be the case, based on established scientific evidence, which we will touch on briefly.

Sleeping, dreaming, and waking

We are all familiar with being awake, asleep, and dreaming. It’s about as fundamental an aspect of our lives as anything could be, and science has quite a thorough grasp of what goes on in our bodies and brains during these states.

Let's start our exploration and analysis from the state of least consciousness, the inertia of deep sleep, and proceed through levels of increasing wakefulness to the fully awakened state of complete enlightenment.

Subjectively, when we are asleep, we have no experience of anything. Physiologically, myriad processes of healing, refreshment, and rejuvenation are going on. All these are subtle levels of basic cellular and organ awareness, but from the standpoint of the usual wakeful awareness there's not much to talk about.

When we dream, we experience an often fantastical reality that could take us anywhere. The dream state is commonly described as illusory. From the perspective of physical reality, what happens in the dream state is simply unreal. Anything can happen. We may be exploring the surface of Mars, running away from a tiger, fulfilling some thwarted waking-state desire — but then we wake up and say, *It was just a dream — it wasn't real*. It had its own reality in the dream state, but that reality differs from deep sleep, where nothing is happening, and also from the waking state. The experience is not transferable. That is, it takes a dream-state weapon to stop the dream-state tiger — a "real" rifle will not help, just as a dream-state rifle would not stop a real-world tiger.

Each state of consciousness is its own universe with its own rules. Or, as Maharishi used to emphasize, "Reality is different in different states of consciousness."

When we sleep and dream, our bodies rest, but the apparent inertia is deceptive, as our bodies and brains perform thousands of processes and adjustments. Our biochemistry changes, our brainwaves change according to whether we are asleep or asleep-and-dreaming, and the brain executes a kind of data management, sorting experiences into cognitive file cabinets of long- or shortterm memory or, in some instances, depositing them in the trash bin. Most of our sleep time (about 75 percent) is spent in deep, non-REM sleep. The rest is dream time. In deep sleep, metabolism slows; temperature, blood pressure, and breathing rate decrease; muscles relax and become inactive. When we start dreaming, all these functions sometimes speed up again to correspond with what is happening in the dream, but the overall trend is for rest.

When we wake up, our senses come alive. We experience the people and things we knew before we went to sleep, and they reappear more or less the

same. We have a baseline sense of who and what we are and of objects and unfolding events in our awareness. These objects can be the apparently solid, concrete items we apprehend with our senses, or they can be thoughts, memories, plans, or entirely imaginary phenomena.

In the waking state of consciousness, something is always capturing our attention. We are always identifying our awareness with something — an external object or process, an internal thought or feeling — and our entire self is caught up in experiencing these phenomena. You look at a rose, and it's the rose that captures your consciousness. You become the rose because that is what's occupying your awareness. That is what consciousness is for in the waking state: a flower, a picture, a thought, a feeling — whatever you are observing or experiencing. What is not present — what we're not aware of — is the unbounded depth of our own self, the observer.

The true nature of the observer is lost, overshadowed, obliterated in our experience of objects. Indeed, it's as if the observer doesn't exist at all. In Vedic philosophy, this state, in which individuals forget the essential nature of their own self, is often called *ignorance*.

The eighteenth-century Scottish philosopher David Hume poignantly described this condition:

> When I enter most intimately into what I call myself, I always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never can catch myself at any time without a perception, and can never observe anything but the perception.[1]

Because most people encounter exactly what Hume described when they look within themselves, they assume there is nothing else, that no other dimension of experience is possible.

This is a huge mistake. The mind is like an ocean, with thoughts as waves on its surface. The deeper you dive into the ocean of the mind, the quieter and more settled it becomes. When we're engaged with the busy, object- and event-filled realm of the mind in the waking state, it's like swimming on the surface. Far greater richness lies within.

Nevertheless, as Hume's comment shows us, we need something more than just thinking in order to experience pure Consciousness.

Seekers through the ages who have heard or read about the experiences of people in higher states of consciousness have eagerly aspired to have those same experiences. They try and they generally fail. So, they try harder and harder. With the passage of time, the experience of pure Consciousness

— known as *samadhi*, *turiya*, *nirvana*, or *satori* in Eastern traditions — comes to be considered difficult, requiring years of practice, focus, and concentration. This is what was commonly believed until the middle of the past century, when Maharishi brought to the world the simple technique of Transcendental Meditation and opened the door of enlightenment to millions of people as something they could experience in a most effortless, natural way.

Transcending: know thyself

The first experience that is "more" than waking-state awareness is the transcendental state, which may easily be experienced through the Transcendental Meditation technique. We close our eyes and allow the mind to go deeper into itself, guided by its own nature. Quite naturally it moves — the attention shifts — from a more objective, concrete, object-referral level of awareness to a more abstract, subjective level. The thoughts and perceptions that were capturing our attention fade away, and we arrive ultimately at the experience of pure Consciousness itself. This is our Self, pure Being, pure existence, beyond any limited experience.

To transcend means "to go beyond." Thus, Transcendental Consciousness, in which one's attention goes beyond the boundaries of thought and perception, is a precisely descriptive term.

This is how Maharishi Patanjali, the great sage who wrote the Yoga Sutra, the textbook of yoga, described this experience: "Yoga is the complete settling of the activity of the mind. Then the observer is established in the Self."[2]

When mental activity decreases, then knower, knowing, and known become absorbed into one another. Perceptions, thoughts, and sensations that previously limited or confined awareness quietly fade away, leaving pure awareness itself. All is calmed, and what remains is unbounded wakefulness.

As practice continues, we experience pure awareness as unbounded in space and time, beginningless and endless, an ocean of pure Being. This is the first time you really experience your true Self.

So Transcendental Meditation, the form of meditation that effectively opens one's awareness to the innermost core of one's being, is a necessity for everyone, at least to know who you are. And then you discover the true

nature of your self — a field of silence and stability, a never-changing absolute state of pure awareness, pure Consciousness, the Self.

In the relative field of life, ceaseless change is the rule. There is no constancy. The people you meet today are not the same people they were yesterday. Even physically and scientifically, everything is always moving and changing. And if everything is always changing, then what is real? For something to be considered real, it should at least be stable for a few seconds.

Certainly, a stone appears to exist in a stable way for a period of time — more than a few seconds, for instance — and seems to be something real. But when you probe deeply into its inner nature, you find that its constituent particles are always moving. If you consider the fine inner construction of the stone, you can never say it is truly the same, even from one moment to the next. You can observe it only from a limited perspective because your eyes are not infinitely powerful microscopes — you don't have a cyclotron in your brain to see the particles in their dance.

Using our eyes and ears and all the senses, we construct a world and a universe filled with objects that do exist and appear to be stable. But our senses are very limited. From a more fundamental, ontological consideration of the true nature of things, we are compelled to conclude that nothing really is stable, that everything is always changing.

Experiencing pure Consciousness

On the other hand, pure Consciousness always exists and is always the same — it is a constant. In fact, it is the only constant there is. It is always real. It is the eternity of life. And that is what you discover in yourself when you transcend. It is the first time you find the absolute reality that truly exists, in and by itself.

This direct experience of pure Consciousness leads us toward wholeness. We reach a state in which the individual observer, the process of observing, and the object observed have all merged into singularity — pure existence and nothing else. The observer — the limited, personal self with its ever-changing perceptions, thoughts, sensations, and so on — temporarily awakens to the higher truth that its true identity is the Self, the silent, expansive pure Consciousness, ever the same.

During the practice of Transcendental Meditation, one mentally repeats a mantra, a Vedic sound without meaning, in a prescribed yet effortless way, such that it becomes subtler, quieter, fainter, and eventually fades to silence. The mind moves inward, through quieter states of the thought and then transcends, going beyond the thought to pure Consciousness itself.

As modern physics has probed finer levels of the physical world, it has discovered that at the deepest level there is no physical world at all, no material objects, not even atoms and subatomic particles, but only abstract, nonphysical fields, all apparently emerging from a single unified field.

The process of transcending is exactly parallel. As we experience finer levels of our own mental world, we find that Transcendental Consciousness is not nothing but rather the source of all the intelligence and creativity displayed in our thoughts. We experience it within ourselves as a field of infinite silence and unexpressed dynamism, unbounded and blissful.

One TM meditator commented, “During meditation, a profound, deep silence settles down after a while, which is beyond my description — just inner peace and contentment beyond time.”

“I realize that this enormous awareness is my Self,” another TM meditator said. “I feel huge although I am physically small. . . . I feel more connected or identified with this expanded awareness than with my little, personal, individual characteristics.” Another remarked, “I see the vast, infinite field of nothingness, without color, shape, texture, or distance. I see myself as a cosmic, silent witness outside our universe.”

And one more comment: “During the practice, my awareness is characterized by bliss, light, unboundedness, and lively dynamic silence.”

The fourth state: Transcendental Consciousness

Transcendental Consciousness, the fourth state of consciousness, is the first higher state of consciousness beyond sleeping, dreaming, and waking. It’s the starting point, the prerequisite for unfolding further stages of growth.

Many people have described this experience through their Transcendental Meditation practice, which is designed to facilitate the transcending process, and since the 1970s thousands of TM meditators have been studied in university laboratories, using EEG and other modes of monitoring. The data clearly shows that Transcendental Consciousness is a unique state of consciousness, in which people enjoy moments of pure awareness or pure

Consciousness without the experience of any object except Consciousness itself, a state in which Consciousness is experiencing its own Self.

In ordinary human experience, we experience our self as separate from all other objects or content in awareness. In the experience of transcendental pure awareness, on the other hand, there is no separation. We experience the Self as singularity, as one unified, unbounded wholeness — as all there is. It is a purely spiritual experience.

These meditative states of awareness have been looked at philosophically and scientifically, with thousands of studies describing their effects on various physiological, psychological, and social parameters.

We say that ordinary waking consciousness is object-referral: our awareness is constantly referring to or attending to an object, whether internal (thoughts, feelings, images, memories, etc.) or external (perception through the five senses) — some activity or unfolding event. In this state, we are not aware that it is possible to be awake without any image, any thought, without anything other than wakefulness itself.

We say that transcendence — the state that arises when all activity ceases, but you don't fall asleep — is a self-referral state. All the ever-changing objects of ordinary perception drop away and what remains is a nonchanging, pure, absolute state of awareness.

One TM meditator describes it this way: "I experience being conscious with nothing other than pure Consciousness in my awareness."

Starting in the late 1960s and continuing to this day, scientists have been looking at the changes that take place in the brain and body during the experience of Transcendental Consciousness, and from the start they found a shift in physiological functioning that had never been seen before, quite distinctive from waking, dreaming, and sleeping — leading them to assert that this was indeed a fourth major state of consciousness. We'll look at these findings in more detail in the next section.

Testimonies from history

Since Consciousness is indeed all that there is, then Consciousness in its pure state, as Transcendental Consciousness, would have to be the source of all the creativity, intelligence, and power displayed everywhere in the universe and in our individual lives as well. In support of this understanding, throughout history we find artists, poets, mathematicians,

scientists, and visionaries across a wide spectrum reporting that this experience of unboundedness, silence, bliss, and light has inspired their unique creativity and profound insights.

"The real genius draws on the infinite source of Wisdom and Power as Milton and Beethoven did," said the classical composer Johannes Brahms. "Great powers like Goethe, Schiller, Milton, Tennyson and Wordsworth received the cosmic vibrations of eternal Truths because they linked themselves to the infinite energy of the Cosmos."[3]

The Roman general and emperor Marcus Aurelius wrote in his *Meditations* something that serves as a reminder for all who look for peace and inspiration outside themselves:

> Men seek retreats for themselves in country places, on beaches and mountains, and you yourself are wont to long for such retreats, but that is altogether unenlightened when it is possible at any hour you please to find a retreat within yourself. For nowhere can a man withdraw to a more untroubled quietude than in his own soul.[4]

The American author and social activist Thomas Merton, a Trappist monk, described his own experience of the transcendent reality in glowing terms:

> A door opens in the center of our being and we seem to fall through it into immense depths which, although they are infinite, are all accessible to us; all eternity seems to have become ours in this one placid and breathless contact. . . . All variety, all complexity, all paradox, all multiplicity cease. Our mind swims in the air of an understanding, a reality that is dark and serene and includes in itself everything. Nothing more is desired. Nothing more is wanting.[5]

For a remarkable collection of expressions of higher states of consciousness from many cultures and over many centuries, I recommend *The Supreme Awakening*, by Craig Pearson.[6]

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CHAPTER 16

COSMIC CONSCIOUSNESS: Experiencing Permanent Unbounded Awareness (Fifth State)

Transcendental Consciousness, the fourth state of consciousness, clearly has remarkable properties — but is there anything beyond this state? How does it affect our experience outside of meditation?

The goal of spiritual practice is not merely to have temporary periods of inner silence and unbounded awareness but to carry that expanded and blissful state of being into all activities and relationships, to enable a true state of enlightened living. This process begins as soon as we add transcendence to our repertoire of experiences, and grows steadily as higher states of consciousness unfold. Transcendence provides a stable yet dynamic basis to the daily cycle of wakefulness, sleep, and dreaming.

This brings us to the next milestone in the growth of consciousness, which develops through the repeated alternation between the experience of transcending and ordinary activity, again and again. Over time, one finds that awareness of the Self is never lost — it persists not only during waking but also during deep sleep and dreaming. Whether in the quiet of meditation, where subtle impulses of mantra or thoughts are accompanied by the soft presence of pure awareness, or in the most dynamic phases of activity, or during the varying colors and shades of dream and sleep, awareness of the Self persists more and more steadily, as if sticking to the mind, until the day comes when one realizes it has become permanent.

Pure Consciousness then continues, through all the changes in one's daily feelings, perceptions, and interactions, a steady inner presence of stability and calm. In fact, deep sleep, in the sense of the total obliviousness that most people experience, no longer exists for such a person because, inside, unbounded awareness — the lively sense of one's deepest being — never

fades away, even though sleep, physiologically, continues to be completely restful.

Both the wakeful state and dreaming become different too, because alongside or underlying them is the ever-present awareness of the Self. Thus, all three common states of consciousness no longer have the same quality but are supported and enhanced by the expansive silence of pure Consciousness. This state, in which inner silence coexists with outward activity, represents a distinctive new state: a fifth state of consciousness. Maharishi calls it Cosmic Consciousness.

Like the fourth state — Transcendental Consciousness — Cosmic Consciousness is supported by a unique style of physiological functioning that we'll look at in the next section.

Like transcendence, people throughout history have enjoyed and described experiences of Cosmic Consciousness. Below, without much comment, are a few examples. I include these because I remember how descriptions of higher states of consciousness inspired me, helping me persevere on my own path. Perhaps it will be helpful to you to hear other people speak in their own voices about how higher consciousness dawned for them and influenced their lives.

Dag Hammarskjöld, second secretary-general of the United Nations and Nobel Peace Prize winner, described his repeated experience in which "every deed and every relationship is surrounded by an atmosphere of silence" and of his desire "to preserve the silence within — amid all the noise." He felt this to be "a freedom in the midst of action, stillness in the midst of other human beings," and he cherished the ability to "see, judge, and act from the point of rest in ourselves," a point "at the center of our being."[1]

These words reveal a major characteristic of Cosmic Consciousness: action supported by silence is most powerful and effective.

Like Hammarskjöld, many people, without rising to live Cosmic Consciousness in a permanent way, enjoy tastes of it — and even tastes can be life-transforming.

Charlotte Wolff, a Polish-born physician, author, and pioneering researcher, experienced a period of expanded awareness during a waking state when she was a young girl walking to school.

> I felt different in size, taller and larger than I really was. A wonderful sense of levitation gave me the feeling that my feet had left the ground and that I was suspended in the air. An unknown and powerful force had got hold of me. . . . It gave me a feeling of omnipotence. At that moment of that day I knew the universe, which I held and beheld inside myself. . . . It was like a miracle. . . . I had

> undergone the birth of my creative spirit and the birth of that part of the mind which reaches out beyond the material and visible world. . . . Time did not exist in this eternal moment. . . .

This experience changed her life in positive ways, but Wolff also notes that "the doors opened themselves. But they shut again, and I possessed no key to enable me to reenter the world I had glimpsed."[2]

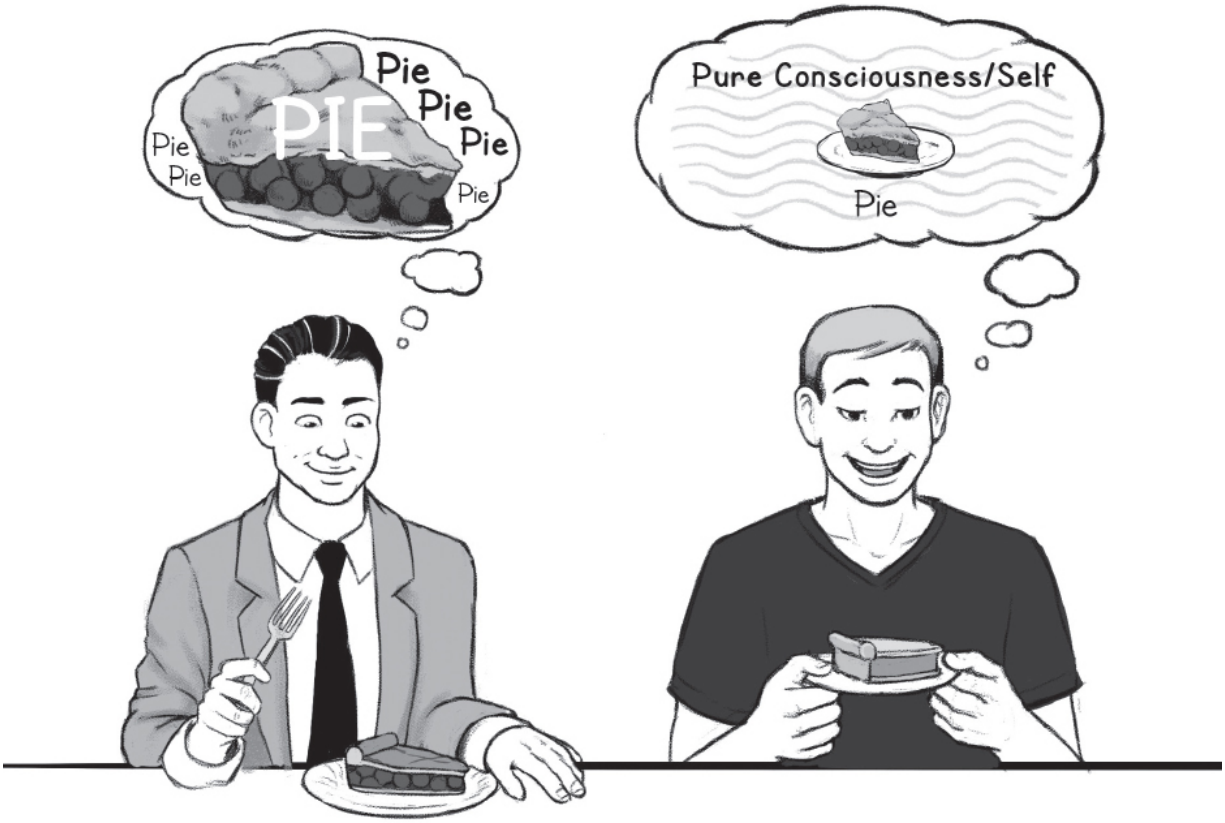
This, unfortunately, is common to many people who come into such an experience inadvertently and feel its beauty and power yet have no effective spiritual practice to reignite the bright flame of Consciousness that momentarily lit up their inner lives.

Long missing has been a path that anyone can walk to elicit such experiences and make them permanent. This, I believe, is one of Maharishi's primary accomplishments in the world. At this time in history, many people seem to be waking up to Cosmic Consciousness or at least to temporary experiences of that state.

Advanced TM meditators have reported different ranges and flavors of the experience of Cosmic Consciousness, from feeling highly alert and responsive yet unshaken and undisturbed by outer challenges to the sense of liberation and freedom in its most glorified state.

One advanced TM meditator writes, "I experience myself as both being connected to and an expression of infinity, or more precisely, what I experience is as a brilliant spark of that infinity which I feel we all are."

Waking state consequences and Cosmic Consequences



In the ordinary waking state, we experience an ever-changing internal stream of thoughts, emotions, sensations, and sensory stimuli. We remain unaware of the silent inner field of Consciousness, which is hidden by everything going on within and around us, and we are more easily thrown off by stressful situations.

During meditation, when we transcend all thoughts and perceptions, we experience pure Consciousness — unbounded awareness, the Self. With twice-daily transcending, we increasingly maintain the experience of pure Consciousness even outside of meditation. It becomes the backdrop of all our experience. We experience inner silence even in dynamic activity, forever anchored in the Self.

Our happiness and well-being no longer depend on external circumstances. We're wide awake, most fully present to enjoy life without being overshadowed by our ever-changing experience.

Another writes:

> The evolution of my experiences has made me a chronically happy, grateful person. On a feeling level, when I look at people and animals and things in my environment, an idea that sometimes pops into my mind is "Oh! That's me in a different form!" It's a wonderful feeling, and I look forward to that experience on the sensory level. Life often feels like a fantastic dream.

The advent of Cosmic Consciousness brings a giant step in the evolution of one's awareness. Let me recap the stages leading to this state:

- *In the waking state*, we experience only the objective reality, both internal (thoughts, feelings, etc.) and external (colors, sounds, things). We do not experience the observer, the Self, Consciousness itself deep within us.
- *In Transcendental Consciousness*, that objective reality temporarily vanishes but awareness does not. Awareness remains aware of itself, awake to itself. In this deeply restful, peaceful inner state, the awareness has no objective content other than itself — it is its own object for as long as the transcendence continues. And then we return to being aware of all the usual play of life.
- *In Cosmic Consciousness*, awareness of awareness itself continues but in a rather remarkable way. To experience it does not require transcending the relative field of objects, nor do the objects obliterate the inner wakefulness. In this state, the two fields of life, absolute inner silence and outward dynamism, coexist. The endless, finite values of the ever-changing relative field of living are supported by the infinite value of singularity. During any activity, individuals perceive themselves to be pure Consciousness.

Cosmic Consciousness is a true state of enlightenment. One experiences the Self at all times, not through any effort, intention, or intellectual machinations but naturally and spontaneously, as effortlessly as opening the eyes and seeing the landscape. It has become established in one's awareness.

This is often considered the pinnacle of human development. But actually, in Maharishi's description, there is quite a bit more to discover.

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CHAPTER 17

GOD CONSCIOUSNESS: Experiencing Nature's Celestial Essence (Sixth State)

In Cosmic Consciousness, you are always awake to your true Self, always knowing yourself to be infinite and blissful. Could there be anything beyond this?

In Cosmic Consciousness, Transcendental Consciousness has become a stable feature of my experience: I always experience my true identity as pure Consciousness. I have learned my genuine identity. But the world around me — the relative sphere of people, trees, cars, clouds, birds, and everything else — remains the familiar world I've always known. In other words, I have gained the ability to perceive and experience the ultimate pure Consciousness in myself but not in anything else.

This is what begins to change once we reach Cosmic Consciousness. Our evolution from this stage onward involves the increasing refinement of perception, culminating in the ability to perceive pure Consciousness or wholeness in the objects we perceive as well as in ourselves — to raise the objects of perception to the same infinite value as the subject. We accomplish this by refining the process of observation, elevating the observer's ability to perceive. This is a very beautiful and rewarding phase of growth, in which the richness and splendor of the subtler realms of nature and creation begin to be perceived and enjoyed and a sixth state of consciousness unfolds.

Many people, at some time in their lives, have enjoyed wondrous moments such as the one described by the nineteenth-century English poet William Wordsworth:

There was a time when meadow, grove, and stream,

The earth, and every common sight,
To me did seem
Apparell'd in celestial light,
The glory and the freshness of a dream.[1]

Such experiences of these higher states of consciousness may be more common than we realize. Recent findings from the Pew Research Center show that 59 percent of Americans say they often feel a deep sense of spiritual peace and well-being, while 46 percent say they often feel a deep sense of wonder about the universe, and those percentages are rising.[2]

The few lines of Wordsworth reveal much of the essence of what Maharishi called glorified Cosmic Consciousness or God Consciousness, in which perception of the subtle levels of nature becomes increasingly possible and real. When these glimpses give way to a lasting mode of being — perception of the deep beauty of creation along with inner awareness of the Self at all times — this new and further elevated state of consciousness is born.

In this state, the steady experience of pure Consciousness characteristic of Cosmic Consciousness continues as our inmost subjective reality. Alongside it, perception of all objective reality begins to be transformed into something glorious. Again, the objective reality does not change. Rather, our *perception* changes to incorporate more of the truth. To an ever-increasing degree, we see the perfect orderliness of the whole range of life and living. We experience the perfection of the divine nature inherent in all the objects that appear to be not-Self — in other words, in the whole field of relative creation.

This refinement of perception catalyzes the growth of love. When we see someone or something beautiful — a glorious sunset, a shimmering jewel, a drop of water catching the light in myriad colors — or when we hear beautiful music or understand an equation in an "Aha!" moment, or when we grasp a fact about nature that reveals the astounding orderliness underlying all things, our hearts naturally swell with appreciation and love. It's a normal, wonderful human experience.

Love is the force that links, binds, and puts together similar as well as dissimilar and even contradictory things — values, ideas, and people. In our paradigm of observer, observing, and observed (or subject, process, and object; or knower, knowing, and known; or subject, verb, and object), love

in its broadest meaning is the verb. It is the process. It is the link that joins the subject with the object.

Creation is a process of coming together. The supreme value of coming together, upholding and supporting each other, is true love. In infinite love there is unbounded appreciation.

When all of creation — when everything we see, hear, touch, smell, and taste — glows with beauty, our thoughts and our feelings turn toward the source of all that intelligence and beauty, which people in all cultures have equated with God in whatever way one may conceive of Him or Her. This is a matter of direct experience, not religious faith or belief. This growth of consciousness takes place independently of religious orientation. Even agnostics and atheists, reaching this exalted state of consciousness, will experience the awe of recognizing the beauty and order shining from within the objective world.

As Albert Einstein wrote in a letter: "I do not believe in a personal God. . . . If something is in me which can be called religious, then it is the unbounded admiration for the structure of the world."[3]

Similarly, Jane Goodall, the pioneering primatologist, anthropologist, and advocate for peace and the environment, said, "But I do believe in some great spiritual power. I feel it particularly when I'm out in nature. It's just something that's bigger and stronger than what I am or what anybody is. I feel it. And it's enough for me."[4]

It is natural to feel love for what one appreciates and admires, and this flow of love grows as consciousness evolves, perception becomes more refined, and a person's ability to appreciate deepens.

"God Consciousness is enjoyed in the ability to overflow in love for the supreme relative reality of everything," Maharishi says.

Attaining God Consciousness does not mean acquiring God's consciousness, Maharishi observes, but rather,

> It is the appreciation of the finest creation, that from where creation began, and that attunement is on the level of one's own Self. . . . God Consciousness is one's own; it is on the level of one's own experience. The one who is in God Consciousness — he is like that, not because of the status of God or creation, but because of his own status.[5]

To emphasize this, Maharishi described God Consciousness as "the appreciation of that value of creation from where creation begins — the

source of relative creation. That is why it gets a name: God Consciousness. Otherwise, it is his own consciousness."[6]

Memoirs and autobiographies offer an abundant resource of accurate self-reports from people who found, often suddenly and without warning, that a veil lifted from before their eyes, revealing the world as they had never seen it before, "inexpressibly rare and delightful and beautiful," "spotless and pure and glorious," "glittering and sparkling" — as many TM meditators have expressed it.

"The appearance of everything was altered," wrote the early American theologian Jonathan Edwards. "There seemed to be . . . a calm, sweet cast, or appearance of divine glory, in almost everything. God's excellency, his wisdom, his purity, and love, seemed to appear in everything; in the sun, moon, and stars; in the clouds and blue sky; in the grass, flowers, trees, in the water and all nature."[7]

"Everything around, above, below me was shimmering and vibrating," wrote the English novelist and playwright Rosamond Lehmann. "The tree foliage, the strip of lawn, the flowerbeds — all had become incandescent. I seemed to be looking through the surfaces of all things into the manifold iridescent rays which, I could now see, composed the substances of all things. . . . The beauty of each of them was fathomless — a world of love."

In a later passage Lehmann reflects on her experience, saying what many others have said, that such moments are ineffable, impossible to describe adequately. "Awestruck, astounded. What words are possible? *And yet*, the sense of recognition, recollection, was predominant. Again and again I told myself, 'Yes. Yes. This is reality. I had *forgotten*.'"[8]

These passages bring up several important points. First, such experiences, beautiful and profound as they are, are almost invariably temporary, often leaving a person longing to repeat the experience or for it to become permanent. They are just experiences, not a lasting state of being. All experiences, even the most beautiful, come and go. Second, and more important, as celestial as these experiences are, indicative of the kinds of perceptions that do characterize God Consciousness, they are not yet that state.

God Consciousness is defined not just by the quality of perception but also by the coexistence of the inner wholeness of pure Consciousness with perception of relative creation in its most refined, rarefied value. It is built upon the foundation of Cosmic Consciousness: unboundedness within,

glorified boundaries outside — silent infinity within supporting the most subtle, tender impulses of creation in the field of perception.

"I could really feel an absolute divine reality, where everything is seen in terms of bliss and unity," one TM meditator said. "When I took a walk, I could really feel wholeness in everything. I would step on the ground and feel like the world had a heart which was pumping at the same time as mine, giving me an amazing feeling of unity."

"During the practice," another TM meditator wrote, "my physiology seems to be transformed into some kind of transmuting device that takes bliss out of the Absolute, brings it slightly into the relative, then broadcasts it all around, like a fountain that brings water up a central channel and then sends it in all directions."

"I have experienced some of the deepest bliss during and after my TM program," another commented. "Outside my TM program, boundaries start to dissolve, and the outside is starting to feel part of me. The trees reflect my bliss and seem part of me, colors are deep and bright. Details are clear. Spontaneous knowledge comes into my mind. I feel attuned with God."

You can easily see why Maharishi called this state glorified Cosmic Consciousness. But why *God* Consciousness? It's because, whether you conceive of God as impersonal lively intelligence, pure Being, or as a He or She creator producing and maintaining the universe, either way it makes sense that the realm of the divine must be at the subtlest level, the most powerful level, as we know from science.

As the impersonal, formless divine reality, God is the intelligent, conscious source of all, underlying all, giving birth to all. On the other hand, the personal aspect of God, if there is such, must be able to function at the junction between the uncreated Absolute and the creation that He or She brings forth. Experiencing such an exalted, divine being requires the fullest refinement of our sensory apparatus, which is precisely what characterizes God Consciousness.

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CHAPTER 18

UNITY CONSCIOUSNESS: All Experience in Terms of the Self (Seventh State)

We have now reached the threshold of the highest level of human development, which Maharishi calls Unity Consciousness, a state of consciousness that corresponds in every way with our thesis that Consciousness is all there is.

In Unity Consciousness, we perceive everything in terms of wholeness. We recognize through direct experience that all is truly one unbounded ocean of Consciousness in motion.

In Vedic Science, unity is indicated by several time-honored, classic sayings or declarations. Among the most famous are, "I am That," "Thou art That," "All this is That," and "That is Consciousness," where *That*, as the last one says, is *Consciousness* and *this* is the entirety of the relative creation, now seen in its true nature as Consciousness.* Another great saying is *Aham Brahmasmi*, meaning "I am Brahman" ("I am totality, the wholeness of all that is: absolute, pure Being — Consciousness, along with all existent and possible relative values"). The *Chandogya Upanishad* states, "*Sarvam khalvidam Brahma*" ("All this is Brahman, totality").

As higher states of consciousness develop, all three components of what undifferentiated Consciousness really is — observer, process of observation, and observed — steadily evolve toward the ultimate level that we discussed earlier: infinite, unbroken, primordial Consciousness — singularity. We first experience this supreme level in the most intimate part of our Self, the perception of our own ego, the observer. We attain the supreme level of Observerhood through repeated transcending, repeated experience of pure Consciousness, and the gradual stabilizing of that unbounded awareness in Cosmic Consciousness.

What connects us to the environment is what I have called *Observinghood*. That gains its highest potential thanks to the refinement of the machinery of perception, reaching its pinnacle in God Consciousness.

When the observer is known in his or her infinite value (when the Self knows itself as pure Consciousness, which is established in Cosmic Consciousness) and when the machinery of perception (the mechanics of knowing) also rises to its full capability (perceiving the infinite value in all one's interactions and in all objects that one observes), then Unity Consciousness is automatically attained. This is when those Vedic aphorisms become not just exalted words but a living reality: "I am That, Thou art That, All this is nothing but That, That alone is."

Unity Consciousness is complete enlightenment, the spontaneous, uncontrived experience of the entire creation from the perspective of the wholeness of the Self. In describing the Consciousness paradigm earlier in this book, we didn't dwell on the stages of growth of personal consciousness leading to unity as we are doing in these chapters — we jumped right away into the total enlightenment of unity by declaring, "Consciousness is all there is." Now we can say that this reality becomes a direct experience, a matter of self-evident fact, in Unity Consciousness.

As we have seen, every state of consciousness brings with it a different experience and understanding, a different knowledge. • *In the dream state*, everything we experience is illusion.

- *In the waking state*, we experience the surface level of things and everything as separate from us.
- *In Transcendental Consciousness*, we inwardly experience the Self for the first time.
- *In Cosmic Consciousness*, we enjoy the permanent and stable experience of that inner, transcendental, unbounded universal self; but everything else — everything exterior to that (including our thoughts, perceptions, and feelings) — we experience as we did before, as ever-changing.
- *In God Consciousness* or *glorified Cosmic Consciousness*, while maintaining continuously the experience of the inner unbounded self, we simultaneously experience the outer field of change as marvelously beautiful, the majestic creation of God and the divine, and our hearts are full of joy at the sublime harmony of creation.

And now we come to *Unity Consciousness*, in which we experience things in an altogether new perspective. It's the state that confirms our theory that Consciousness is all there is.

True knowledge

In each of the preceding states of consciousness, the knowledge we gain is relative (ever-changing) and incomplete (offering only a partial view of the total reality). This knowledge may be valid in its own domain, as in waking consciousness. It may involve a vastly expanded backdrop of consciousness, as in Cosmic Consciousness. It may be so wonderfully glorious that it is divine, the state known as God Consciousness. Yet each of these states of consciousness is relative, an incomplete state of consciousness from which to view the world.

Unity Consciousness brings us, at last, to complete knowledge, total knowledge, true and nonchanging knowledge — to the consummate truth about existence, about reality itself.

The one state of consciousness that is absolutely true to how things actually are is Unity Consciousness. You never know reality as it truly is until you are in Unity Consciousness. All the other states are kinds of perceptions, styles of functioning of your nervous system, modes of experiencing. They do convey, at every step of growth, an increasingly complete assessment of the full range of how things are. But only in Unity Consciousness do you come to the true, all-inclusive reality.

Let us tie this back to the initial process of transcending. In this process, the ever-active mind quiets down and then slips beyond the boundaries of thought and perception while remaining awake within itself. This pure wakefulness — awareness without an object other than itself, the unified state of observer, observed, and process of observation — is our essential nature, our Self. It becomes accessible to us when we transcend. Here we experience unbounded pure Consciousness, pure Being, which is our Self, all-pervading and nonchanging.

Growth to Unity Consciousness involves a similar process, except that, in a sense, we transcend *outside*. *In a sense* means that the outside world of boundaries, objects, and relationships doesn't disappear as it does in the experience of Transcendental Consciousness during Transcendental Meditation practice. Rather, in our perception of the objects — any object,

whether inward or in the outside world — we transcend the object *in the object itself.*

Within the ever-changing nature of the object — indeed, within the very fabric or substance it is made of — you experience the Self, your own Self, expressing itself as the object. Looking at the object, what you see is your Self. Whatever the object (a stone, a steeple, a star), you see it as the same as what you are: unbounded Being. Wherever you turn your attention, you find your Self. That is Unity Consciousness. That is the only ultimate reality. Everything else is an appearance, a play of that one Absolute.

The ultimate reality is one unbounded ocean of Consciousness in motion. That is the only absolutely true, always consistent reality. And this is what, in Unity Consciousness, opens to our direct, ongoing experience.

We already have the intellectual understanding that everything in the field of physical or subtle creation is essentially pure Consciousness, pure Being, the unified field of natural law. Now, in Unity Consciousness, in everything we may experience, we directly perceive that infinitely silent, infinitely dynamic level of life. The boundaries of the object remain but are as if transparent to the experienced reality of pure Consciousness.

To sum up how our experience changes as we rise through higher states of consciousness: in Transcendental Consciousness we first experience the field of pure Consciousness, the Self, deep within us. In Cosmic Consciousness, we experience it all the time, along with waking, dreaming, and sleeping. In God Consciousness, we experience the finest relative value of everything, the subtlest expression of the manifest. And finally, in Unity Consciousness, we experience pure Consciousness, the Self, everywhere, in everything, as everything. We experience the universe as one unbounded ocean of Consciousness in motion, and that ocean is our own Self.

Here is how one TM meditator describes it:

> Every day I have the experience of *I am totality* in my TM program. This is how I feel quite often during regular activity, too. This *I am totality* isn't just a meditation thing, it's a walking-in-the-woods thing, an eating-lunch thing, and a driving-to-the-store thing. It is seeping into my daily life. This is so close to what I have always thought of as a Unity experience. My consciousness is changing: I feel it, I see it, and I know it.

Another TM meditator describes it in these simple words: "I see that I am everywhere, that my consciousness is everywhere and everything."

As with the prior higher states of consciousness, people throughout history have described this exalted state of Unity. The twentieth-century American mathematician and philosopher Franklin Merrell-Wolff wrote, "I found

myself spreading everywhere and identical with a kind of 'Space' that embraced not merely the visible forms and worlds but all modes and qualities of consciousness as well. . . . That totality was, and is, not other than myself. . . ."[1]

Here again he speaks of unity: "Speaking in the subjective sense, I am all there is, yet at the same time, objectively considered, there is nought but Divinity spreading everywhere." Self and objects, he saw, "are one and the same Reality." As radical as this realization was, "there was no sense of being in a strange world. I have never known another state of consciousness that seemed so natural, normal, and proper."[2]

And in a passage reminiscent of Maharishi's description of the transition from God Consciousness to Unity Consciousness that we quoted earlier, Merrell-Wolff wrote:

> I found myself so identical with all, that the last most infinitesimal element of distance was dissolved. . . . There finally arrived a state wherein both that which I have called the Self and that which had the value of Divinity were dissolved in a Somewhat, still more transcendent. There now remained nought but pure Being. . . . No longer was "I" spreading everywhere through the whole of an illimitable and conscious Space, nor was there a Divine Presence all about me, but everywhere only Consciousness . . .[3]

Another modern seer whose awareness opened to higher dimensions was Gopi Krishna. He wrote, "[Y]ou do not see the world as a solid, real, objective creation." Rather than solid physical stuff, "the real, objective creation is consciousness. You see consciousness everywhere. . . . It is infinite: it is deathless."[4]

"Although linked to the body and surroundings," Gopi Krishna continued, "I had expanded in an indescribable manner into a titanic personality, conscious from within of an immediate and direct contact with an intensely conscious universe . . . the invisible line demarcating the material world and the boundless, all-conscious Reality ceased to exist, the two fusing into one."[5]

Peace Pilgrim, the American peace activist, spent the last thirty years of her life walking back and forth across the United States (more than 25,000 miles in all) speaking of the importance of cultivating inner and outer peace. Here she recounts the experience on an early morning walk that precipitated her unusual career:

> All of a sudden I felt very uplifted. . . . I remember I knew *timelessness* and *spacelessness* and *lightness*. I did not seem to be walking on the earth. There were no people or even animals around, but every flower, every bush, every tree seemed to wear a halo. There was a light emanation around everything, and flecks of gold fell like slanted rain through the air. . . . The most important

part of it was not the phenomena [but rather] the realization of the oneness of all creation. Not only all human beings — I knew before that all human beings are one. But now I knew also a oneness with the rest of creation. The creatures that walk the earth and the growing things of the earth. The air, the water, the earth itself. And, most wonderful of all, *a oneness with that which permeates and binds all together and gives life to all*. . . . I have never felt separate since.[6]

Transcendental Consciousness: 4th State

We experience the fourth state of consciousness — beyond waking, dreaming, and sleep — during Transcendental Meditation practice. In this unique state of restful alertness, known in classical yoga as ***samadhi***, our attention is spontaneously drawn inward, and the mind transcends or goes beyond objects of perception to experience Consciousness by itself — pure Consciousness.

In this state, Consciousness is unbounded and knows itself as a singularity. Scientists have found that, during this fourth state, brain functioning becomes more coherent and integrated, as measured by EEG (electroencephalographic) brainwave studies.

Cosmic Consciousness: 5th State

Through twice-daily transcending in meditation, brain functioning becomes increasingly integrated and coherent even outside of meditation. The deep physiological rest gained during transcendence — deeper than sleep — purifies stresses and imbalances from the physiology, allowing the fourth state to stabilize.

We then live the state of restful alertness or pure Consciousness continuously — it's never lost, even outside of meditation. This is Self-realization or Cosmic Consciousness.

In this state of *enlightenment*, you live in the wholeness of your inner being, no longer in the dark as to the true nature of the Self. You experience the changing world around you as naturally separate from the stable inner reality of pure Consciousness. You're fully present to enjoy life, yet never thrown off or overshadowed by changing circumstances or day-to-day challenges.

God Consciousness: 6th State

Further purification of the nervous system through the continued practice of transcending leads to refinement in the human machinery of perception — the sensory apparatus and

cognitive functions. We experience subtler, richer, more charming levels of reality. The greater beauty or “divine order” of existence opens to human awareness. We perceive what has been traditionally described as the “celestial” level of existence. This development of refined perception involves expansion of the heart, because the process entails growth of appreciation and love for all creation.

Unity Consciousness: 7th State

After we reach the fifth and sixth states, our consciousness continues evolving. The sixth state brought the experience of the finest relative field of life. Now comes the experience of “finer than the finest,” bringing to light the ultimate reality of everything: Consciousness.

As the living day-to-day reality of life, we experience everything as made of Consciousness. We maintain all the faculties of waking state experience — but now, along with the glorified perception of the sixth state, we recognize everything and everyone to be the same pure Consciousness that is our own Self. We experience everything in terms of the Self. In Unity Consciousness, we empirically verify for ourselves — through direct personal experience — the ultimate truth that Consciousness is all there is.

This is a higher state of consciousness simply because it incorporates more of the qualities we associate with a richer and deeper life: a broader perspective, as if seeing from a mountaintop, along with greater access to a source of intelligence, more broad-based and multifaceted creativity, greater happiness, more genuine and overflowing love, and other positive values that make life more effective and fulfilling. These values grow proportionately to the increasing stabilization of pure Consciousness in one's awareness.

Living wholeness

People routinely speak of a career path, typically starting with formal education and advancing through jobs and training to positions of greater responsibility, influence, and compensation. Others speak of a spiritual path, which also entails growth from an elementary level of insights and practices to an ever-richer appreciation of spiritual values.

Whatever we choose to call it, we all are on a path of living, unique and individual, making our own way through the complex, sometimes confusing and even confounding abundance of life in the world.

Some tracks are narrow — with rigid boundaries of beliefs about what is possible, acceptable, healthy, and so on — while some other paths are more open and inclusive. Individual human evolution takes us from the limitations of largely egocentric thought and behavior to a more universal and generous connection with life, as our awareness expands to appreciate and incorporate what we are calling singularity.

This growth takes place in the higher states of consciousness I have been describing here. The progression happens naturally as our pattern develops from that of a child to an adult and then to higher states of consciousness, encompassing more understanding and more knowledge as we move toward the expression of our total potential as human beings in the cosmos.

As we evolve, our path through life — built of myriad influences from our own genetic and karmic inheritance and the customs, climate, and laws of nature in which we live — becomes wider and smoother. We develop a broader range of options. We can see and experience more and live in ever greater fulfillment.

All genuine education produces this broadening, deepening effect. Formal education aims for it directly, but the education we gain through life experience is often more valuable to our development and our capacity to understand the world.

We are never the same. You are not the same today as you were yesterday. Perhaps you learned something, encountered someone or something that opened your eyes to new possibilities or uplifted your spirit, gave you new knowledge or renewed hope. Your pattern has been changed. Your vision has changed. The color of your "glasses" has been transformed.

And because you are here, the world is never the same. Your thoughts and activities, your very existence, alter the currents of the world as they flow downstream.

Any human being can rise to higher states of consciousness. This is everyone's birthright, natural to life. The fastest path is to begin to experience pure Consciousness directly. This simply involves diving within, and there it is — pure Consciousness is our innermost nature. By experiencing pure Consciousness regularly, Consciousness itself increasingly becomes what we experience and know ourselves to be. This is not theoretical — it has been the experience of millions of people around the world.

Greater knowledge, higher truth

We tend to believe in the "truths" we have grown up with, and it can be difficult to embrace a new way of looking upon life and reality. Yet this is precisely what the great scientists of the quantum age — Einstein, Heisenberg, Planck, Bohr — were compelled to do when the strange things they discovered forced them to abandon basic principles of physics and their own conceptions of reality.

"A new scientific truth does not triumph by convincing its opponents and making them see the light," wrote Max Planck, one of the founders of quantum theory, "but rather because its opponents eventually die, and a new generation grows up that is familiar with it."[7]

This often highly disruptive, evolutionary, or revolutionary process happens more routinely in the physical sciences than most people realize. As Thomas Kuhn wrote in his seminal work, *The Structure of Scientific Revolutions*, most widely accepted theories "discovered" by science rule the day even in the face of new and contradictory findings resulting from more sophisticated research techniques.

Until, that is, overwhelming new evidence ultimately sends the long-accepted concepts crashing to the ground. Such was the case, for example, with the belief, unquestioned until nearly the end of the sixteenth century, that Earth and humankind were located at the center of the universe.[8]

Why can't the same kind of revolutionary thinking, the hallmark of the physical sciences from classical Newtonian physics to quantum theory, be applied to a new way of thinking about consciousness?

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* These are among the classic *Mahavakyas*, the great sayings or declarations, in which *That* and *Brahman* — totality or wholeness — are synonymous and both refer to Consciousness, as the last utterance says. "I am That," *Aham Brahmasmi*, is found in the *Brihadaranyaka Upanishad* (1.4.10). "Thou art That," *Tat tvam asi*, is found in the *Chandogya Upanishad* (6.8.7). "All this is That," *Sarvam khalvidam Brahma*, is from the *Chandogya Upanishad* (3.14.1). And "That is Consciousness," *Pragyanam Brahma*, is found in the *Aitareya Upanishad* (3.1.3).

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PART IV

Technologies of Consciousness

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CHAPTER 19

TECHNIQUES FOR TRANSCENDING: Experiencing Pure Consciousness

"Technologies" may seem an unusual term to apply to consciousness. When we think of technology, we usually picture machinery and equipment, often electronic. We think of engineering and industry.

But technology is simply the application of scientific knowledge for practical purposes, and when we say *technologies of consciousness*, we mean it in exactly this sense.

The scientific knowledge that the technologies of consciousness draw from is not the result of modern laboratory studies, though modern studies do confirm their effectiveness. These technologies derive from the ancient Vedic tradition of India, regarded as the world's oldest continuous tradition of knowledge — a scientific tradition in the sense that the ancient Vedic *rishis* ("seers") were scientists of the subjective domain. Through their systematic inner explorations, they discovered the reality of pure Consciousness, the field of vibrant stillness that opens in human experience when the mind becomes still. They further discovered the inner dynamics of this field of Consciousness and how it appears to give rise to the phenomenal world surrounding us.

They also developed practical applications of this knowledge, starting with meditation techniques to enable others to experience Consciousness and live it in daily life. This is the origin of the Transcendental Meditation technique.

Therefore, we define *technologies of consciousness* as systematic methods for experiencing and developing pure Consciousness, with Transcendental Meditation foremost among them.

Certainly there are many mental practices for developing specific aspects of cognitive and affective function. There are techniques for enhancing

concentration and improving memory, for generating creative ideas and dealing with emotions, for expanding one's point of view and cultivating a more positive outlook. And there are mindfulness techniques, which I'll have more to say about in a few pages.

Here we are focusing on the experience of unbounded pure Consciousness, which opens when the mind "dives within" and becomes still — beyond thought and feeling, beyond sensory perception, beyond any "relative" mental content, even awareness of the present moment.

The Transcendental Meditation technique is uniquely designed to elicit this experience. It is simple, natural, and above all, effortless. There is no trying to "empty the mind," no monitoring of thoughts, no concentrating or controlling the mind in any way.

Yet despite its simplicity — or, more precisely, because of its simplicity — it produces remarkably wide-ranging changes in the body during the practice and an equally remarkable array of benefits over time with regular practice.

Changes during the practice: research on Transcendental Consciousness

In the early 1970s, when articles in *Science*, the *American Journal of Physiology*, and *Scientific American* described the discovery of a fourth major state of consciousness, those who had experienced the transcendental state were delighted to read that science was recognizing its validity.

Abundant scientific evidence shows that something unusual and significant takes place during transcendence, and not merely in the mind. It is not just a subjective psychological state but involves the body as well. As we have seen, every state of consciousness has a corresponding constellation of physiological parameters. Just as in sleep, dreaming, and wakefulness, the transcendental state also has its own unique pattern of mind–body functioning.

This fourth state embodies extremely deep relaxation and rest, more profound than sleep. This is measured, for example, by very shallow natural breathing and periods of unforced breath cessation, with no compensatory overbreathing afterward. The autonomic nervous system, which keeps your body's essential machinery working, also becomes deeply relaxed. The body's blood chemistry becomes balanced and purified, with the stress hormone cortisol dropping sharply, and blood lactate, a waste by-product of metabolism, also declining significantly.

Yet — and this is particularly interesting to me as a neuroscientist — simultaneous with the deep state of physical restfulness, awareness is lively, and brainwave activity shifts to a markedly high degree of coherence and integration, signaling an unusually balanced activation of the total brain.

Long-term benefits: research on growing Cosmic Consciousness

Naturally, such a deep state of restfulness has a wide range of health-giving consequences that have also been extensively documented.

For example, the brain begins to maintain the coherent functioning of Transcendental Consciousness even during the waking state.[1] The body also maintains a more relaxed — but also more responsive — style of functioning outside of meditation.[2]

As Cosmic Consciousness grows, we find unprecedented increases in cognitive abilities (intelligence,[3] creativity,[4] moral maturity,[5] field independence,[6] and learning ability[7]), along with numerous measures of better health[8] and slowing of the aging process.[9]

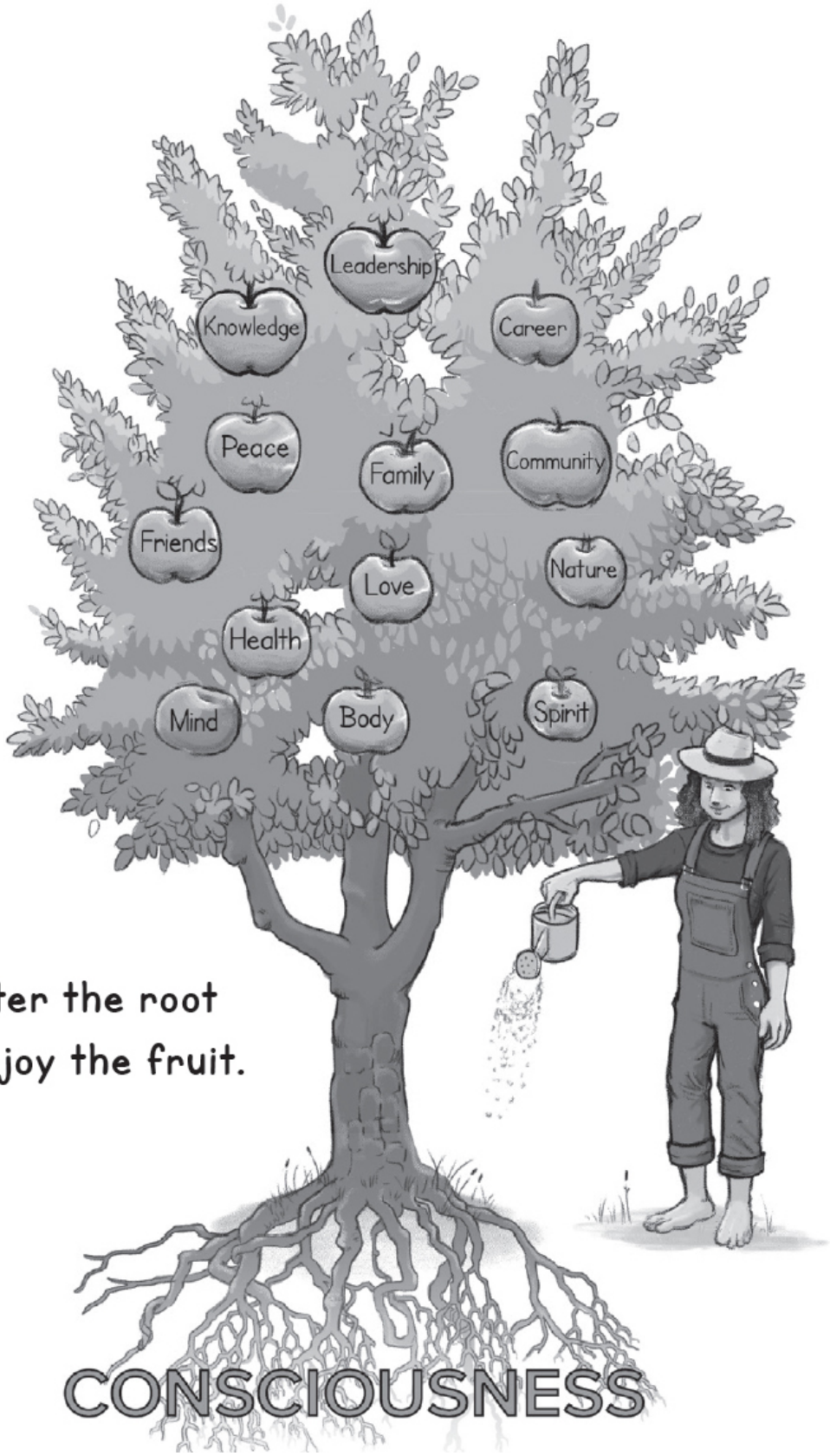
We also find holistic growth of personality, including greater self-esteem,[10] self-actualization,[11] and ego development,[12] along with reduced stress and anxiety.[13] And all these changes lead to more fulfilling interpersonal relationships.[14]

We regard these studies on the long-term benefits as indicating progress toward Cosmic Consciousness. As Cosmic Consciousness develops, we see a blossoming of all dimensions of human potential.

How does the technique work?

The technique is simple, natural, and effortless. TM practice, as I indicated earlier, involves repeating a mantra, a special Vedic sound that has no meaning but is used for its sound value alone. The mantra is the vehicle for transcending, for enabling the mind to settle inward. When we use the mantra in the prescribed way, it becomes softer, subtler, fainter. Eventually it dissolves into silence, leaving the mind in pure Consciousness itself.

Nourishing the tree of life



Water the root
to enjoy the fruit.

Consciousness is the most fundamental aspect of life, as roots are fundamental to the life of a tree. When you water the tree's roots you enrich every aspect of the tree — branches, leaves, flowers, and fruit. Similarly, when we dive within and transcend in meditation, we're watering the roots of the tree of life, enlivening the deepest level of our life, pure Consciousness, and thereby nourishing and enriching every aspect of life, inner and outer.

How can one simple procedure produce such an abundance of benefits?

The answer is that Consciousness is fundamental — it's the basis and essence of everything. When we transcend, we enliven Consciousness, activate it, make it lively in our awareness. As a result, all aspects of life, mental and physical, become nourished and grow stronger.

Maharishi likens the process to watering the root of a tree. Through the simple act of supplying water to the root, we nourish all parts of the tree: trunk and branches, stems and leaves and fruits. Maharishi expresses this phenomenon concisely: *Water the root to enjoy the fruit.*

Mindfulness

Living involves a sequence of moments of awareness, one bit of consciousness — *observer>observing>observed* — after another. Broadening and deepening one's personal consciousness is the hallmark of growth, evolution, and a widening perspective on reality (rising in the manifest pyramid). The more facets of wholeness you know, the clearer your realization of ultimate truth. The more individual puzzle pieces you assemble, the more you see the big picture. To truly see and appreciate the pieces, we need engaged, mindful attention: the fuller our attention, the more complete our appreciation.

But the modern world challenges such experience. Bombarded by information and external demands, pressured by stress and worry, we might begin to focus on less positive and desirable aspects of life, on fleeting, insignificant, non-evolutionary values that are contrary to being mindful. Then the mind jumps around aimlessly, tossed about like a boat in a storm, unable to settle down and fully experience the depth of life. Such unsettled moments of experience, or bits of Consciousness, lack clarity, purpose, and fulfillment.

Mindfulness techniques train the mind to experience the present moment calmly, focusing fully on one thing at a time, without distraction. Some techniques involve attending to one's breathing or to simple physical sensations, perhaps the taste of food, while not pushing away other thoughts or feelings. It's possible to guide the mind to be mindful.

As a result, individual bits of Consciousness become more meaningful. People do experience relaxation and other benefits from mindfulness approaches. They can also momentarily divert the attention from stress and help create a more favorable mental state for a richer experience.

But mindfulness is less effective if contrived or unnatural. Attempting to be mindful during daily activity can divide your mind. If you're playing tennis while also trying to be aware of your breathing or trying to "witness" yourself playing, you are not giving full attention to your play. Maximum success requires maximum attention. Dividing the mind in this way can lead to underperformance and anxiety. Mindfulness must be a genuine experience, not an artificial mood.

When your attention flows to something that is attractive and fulfilling, mindfulness happens naturally. Everyone has exceptional experiences of mindfulness — fullness of the mind — whether a scientist having an "Aha!" experience during a great discovery, a composer finding the perfect melody, lovers meeting after a long separation, or a hungry child delighting in a favorite treat. Happiness and fulfillment have many levels and dimensions.

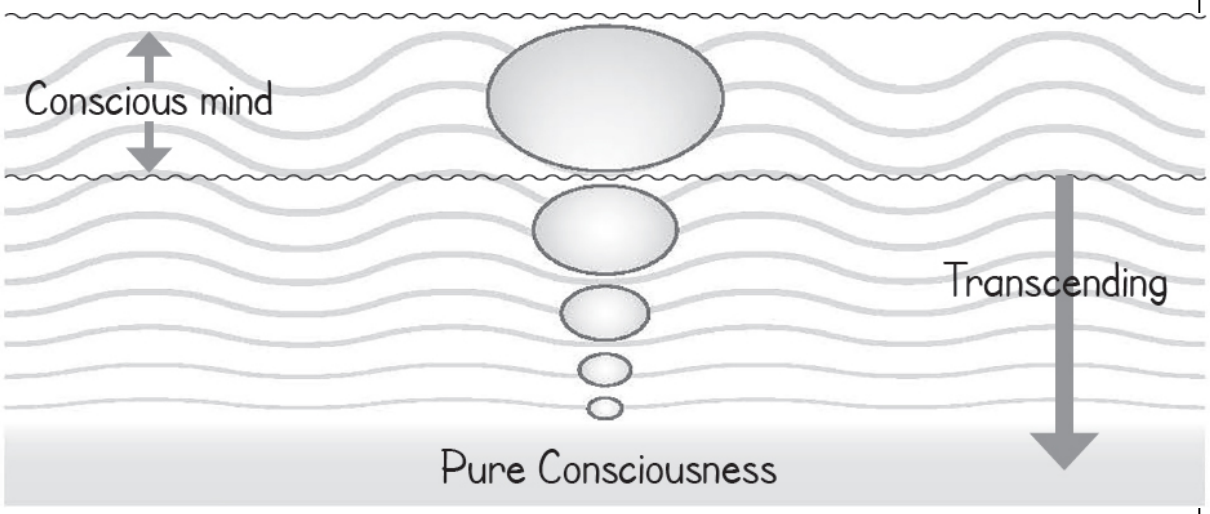
But the experience is less important than the experiencer. The subject, the observer, remains primary. It's the subject, after all, who's having the experience.

The experience of fullness varies with the clarity, breadth, and depth of the mind. An ocean and a glass of water can both say, "I am full," but it is not the same fullness. Stress, strain, and imbalance in mind and body constrict our perception, limiting our ability to experience true wholeness. For maximum awareness and most fulfilling experience, we need to release deep-rooted stresses and establish mind–body balance.

The most effective way to do this — to align body, mind, and consciousness in the most evolutionary direction — is by directly experiencing pure Consciousness. No experience is more fulfilling. Awareness expands, stress dissolves, and mind and body become settled and balanced.

This cannot happen through intellectual analysis or projecting attention toward anything outside of us. It happens only through transcending all outer experience, all activities of the mind, all thought and feeling.

Transcendental Meditation accomplishes this naturally and effortlessly while also giving the body the deep rest that dissolves deep stress. As the experience of pure Consciousness becomes increasingly familiar, mindfulness becomes increasingly natural and spontaneous, uncontrived, even during a competitive tennis match — and without trying to be mindful.



Picture the mind as a lake or pool. Like bubbles arising from the bottom of the lake, thoughts arise from deep within us, from the field of pure Consciousness, the source of thought. They become progressively more developed until they reach the “surface” of the mind, the conscious mind, where we experience them as thoughts.

The TM technique effortlessly allows the mind to move in the opposite direction, inward, through finer values of thought, until it transcends even the finest value of thought and merges into the experience of pure Consciousness, our innermost Self.

Sometimes the mind is compared to a lively, restless monkey, forever running and jumping here and there, never still, rarely focused. But give the monkey something delicious to eat and it stops rushing around and settles peacefully in one place. Like that, give the mind the charming experience of transcendence and it spontaneously settles. Then mindfulness is automatic and persists outside the experience of Transcendental Consciousness.

As we stabilize this experience, we feel increasingly free and full, without constraints. Everything we do becomes more rewarding. As we grow in Cosmic Consciousness, we move from one fullness to another, our consciousness expanding until we can say, “I am the unbounded ocean of Consciousness.”

Yoga

The ultimate goal of yoga is realizing the unity at the basis of all diversity. *Yoga* in Sanskrit means “unity.”

As a discipline, Yoga is one of the six Darshanas, a category of knowledge in the Vedic literature. Maharishi organized the hitherto scattered Vedic literature into forty aspects, and brought to light the various functions of each discipline. The Darshanas, for example, deal with the qualities in natural law related to distinguishing and deciding (Nyaya), specifying (Vaisheshik), enumerating (Samkhya), unifying (Yoga), analyzing (Karma-Mimamsa), and living wholeness (Vedanta).

There are various disciplines by which one can reach the highest goals of yoga. They include:

- *Karma yoga, the yoga of action*. Growth and development through Karma yoga requires action and behavior that support your personal evolution and the well-being of others with the intention to create unity and peace among people and nations.
- *Gyan yoga, the yoga of knowledge*. Discovering the laws of nature and understanding how the universe works are part of this yoga. Ultimately, gaining spiritual knowledge, where the mind and the intellect dwell on higher and deeper values of life, is most conducive to the goal in the yoga of knowledge. Reading and reflecting on the knowledge in this book can be considered part of Gyan yoga. But the highest knowledge comes from directly experiencing the inner Self and realizing that this is the self of everyone and everything.

- *Bhakti yoga, the yoga of devotion*. This is the path of love and giving to others. Your devotion could be to your children, your parents, your partner, your teacher, your country, the environment, God, even strangers. This kind of devotion takes you beyond your limited self, subtly expanding your concept of being, from a narrow, individual existence to a greater wholeness.
- *Supreme yoga, directly experiencing the ultimate reality of unity within oneself.* This happens by going beyond all outer expressions, all expectations, and all attachments. This yoga has often been misunderstood as relinquishing all possessions and activities and becoming a recluse. Although a reclusive life has merits for certain people, enlightenment through this supreme yoga is not reserved for those who abandon daily activity and responsibility — it's for everyone.

With Transcendental Meditation, one dives deeply within oneself to experience pure Consciousness. This is supreme yoga — the direct experience of the ultimate unity within. Whether one has a family and a business or lives in a monastery or an ashram, this is the goal of all experience.

With TM practice, the activity of daily life is every bit as important as the silence of meditation. Activity is essential for stabilizing what we gain during meditation. Trying to contrive the experience of pure Consciousness during activity or adopting an attitude or mood of nonattachment is contrary to the principles of TM practice and is strongly discouraged. It's important to plunge fully into activity, with undivided attention.

TM practice thus offers a dual benefit: the inward "reclusestyle" practice for twenty minutes twice a day coupled with outward, full-on, dynamic, and productive daily life.

Yoga as commonly practiced today comes from the eight aspects or limbs described by Patanjali in his aphorisms, the *Yoga Sutra*. One of those eight aspects is *asana*, which describes different postures of the body. Asana in Sanskrit refers to a seat, generally understood as a sitting posture for meditation.

In our analysis of how manifestation emerges from the unmanifest, we described how bits of Consciousness lead to modes of Consciousness and how these get organized into patterns of Consciousness. Our human anatomy, the structure of our body and its internal organs, is our individual pattern. Within this pattern, our body performs different functions. In our model, the

various physiological functions are the networks possible within each pattern. When you act as a doctor, an athlete, a musician, and so on, you are activating different sets of networks within the same anatomy, the same pattern.

The various yoga postures, or asanas, facilitate different functions (networks) in the body (pattern). Yoga asanas can promote greater integration among mind, body, and environment. This cultivates unity between the inner and outer aspects of life. When performing asanas — to the point of stretch and without straining — it's important to give attention to each posture, gently drawing awareness to the points of stretching and then allowing awareness to expand to unboundedness, the state of Yoga. Doing asanas in a rush, without involving attention and awareness, does not give the time needed to take maximum advantage of those moments of experience (bits of Consciousness) and is not as effective.

In the eight limbs of yoga, the highest is *samadhi*, transcendence, ultimate union. Samadhi has long been regarded as difficult to attain, requiring perfection in each of the previous seven limbs, including asana, pranayama (breathing exercises), and dharana (ability to focus).

However, Maharishi teaches that since the eight aspects of yoga are intimately connected, improving one of them automatically improves all the others. The TM technique offers direct experience of samadhi, the easiest among the eight aspects. Through this simple and natural experience, one's capacity for Karma, Gyan, and Bhakti yoga spontaneously improves.

Decades of scientific research on the Transcendental Meditation technique has shown that it produces wide-ranging, holistic effects, as we have seen. These include greater clarity and ability to focus, improved metabolism, naturally softer and balanced breathing, and increased flexibility and effectiveness in mind, body, and behavior. In other words, the regular experience of transcending leads to growth in each of the eight limbs of yoga.

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CHAPTER 20

COHERENCE IN COLLECTIVE CONSCIOUSNESS: The Pathway to Peace

When we assert that Consciousness is all there is, two important questions arise: Is there any objective evidence to support this theory? And does this theory have practical applications?

The answer to both questions is yes.

Both questions bring us to a core element of Maharishi's teaching and to the most promising path that I know to a bright future for humanity.

In 1960, Maharishi predicted that if even a small percentage of a population practiced the Transcendental Meditation technique — as little as one percent — this would be enough to create a tipping point in the whole population, a shift from negative to positive.

By 1974, the first scientific study had been conducted confirming this prediction. That study found that in US cities where one percent of the people had learned the TM technique, the crime rate declined. This was in comparison with matched control cities where few people had learned the TM technique and where there was no change in crime rate. The scientists termed it the *Maharishi Effect.*

This pilot study inspired further research, involving larger numbers of cities and larger populations as well as additional social variables, such as accident rates and violent death rates. Each subsequent study further confirmed Maharishi's initial prediction.[1] Because crime, accidents, and violent deaths directly reflect social stress, these studies showed that TM practice neutralizes stress not only in the individual but also in the whole society.

Between 1976 and 1977, Maharishi introduced an advanced meditation program called the TM-Sidhi® program, which he said would accelerate the

benefits of the Transcendental Meditation program. With the addition of these powerful techniques, he predicted that an even smaller percentage of people — just the square root of one percent of a population — would create a tipping point toward greater peace and harmony in society, especially when people practice the techniques together in groups.

This gave rise to a second phase of research. Because the numbers needed to create the effect had now become so small, groups of TM and TM-Sidhi program participants could be assembled intentionally, and scientists could measure changes in indicators of social stress before, during, and after each assembly. In the following years, research projects were conducted all over the world, in different cultures, with groups of different sizes.

These studies also looked at additional social variables — motor vehicle deaths, suicides, infectious diseases, alcohol and cigarette and drug consumption, inflation and unemployment, and other measures. The studies found that when the group size was large enough, each of these negative values declined. The Maharishi Effect even improved international relations, reduced the intensity of wars, and reduced international terrorism. Again and again, the predictions were confirmed, and scientists gained increasing knowledge of how the Maharishi Effect works and how societies can be transformed by very small numbers of people.

These studies used open, publicly available statistics, and the results were typically predicted in advance. No experiment has failed to produce the predicted results. Unconventional though they are, fifty-four empirical studies have been conducted and twenty-eight of them have been published in leading peer-reviewed scholarly journals.

Reducing violent crime in Washington, DC

A rigorously designed experiment was conducted in Washington, DC, in the summer of 1993. Washington had been plagued by violent crime, and crime typically increases as temperatures rise in the summertime.

The experiment would bring several thousand TM and TMSidhi program experts together in the city to form a *coherencecreating group* that would transform the quality of city life.

Led by Dr. John Hagelin, the organizers made three bold predictions to the media about what this group would do. They predicted that violent crime in Washington would drop by 20 percent, that the overall quality of life in

Washington would improve, and that government would become more effective.

The leaders of the project took extraordinary care to ensure the validity of the research. To evaluate the research objectively, they formed an independent twenty-seven-member Project Review Board, composed of some of the leading sociologists and criminologists in the United States — from the University of Maryland, Howard University, the University of the District of Columbia, American University, Temple University, the University of Texas, and the University of Denver College of Law. The Project Review Board also included members of the Washington, DC, metropolitan police department as well as local government and civic leaders. This board advised on the research design, oversaw the research process, and gave critical feedback on the research report.

The field effect of consciousness

Millions of people have experienced that Transcendental Meditation creates inner peace and harmony, and that the practice generates a peaceful, harmonious influence in the surroundings.

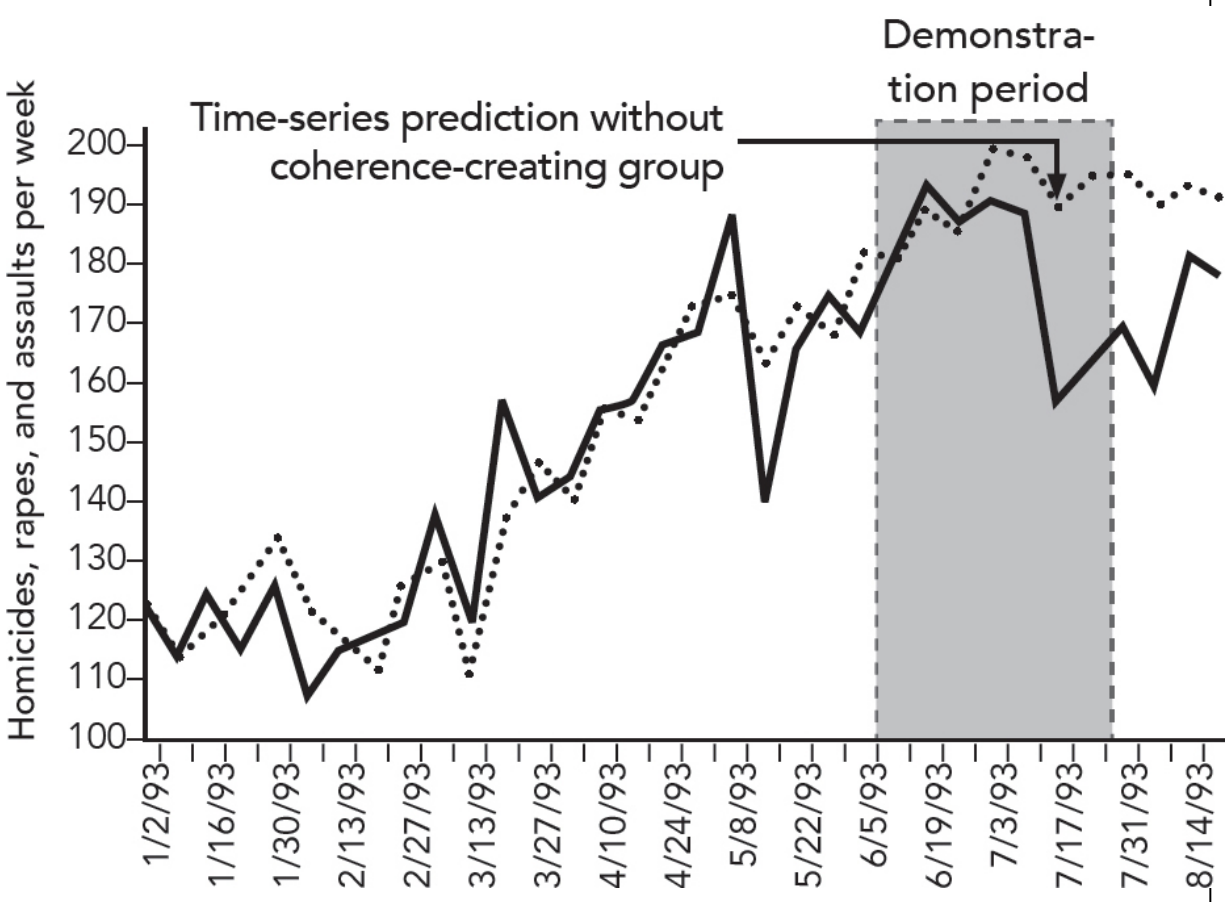
When large groups practice the TM and TM-Sidhi programs together, they create a measurable influence of coherence that spreads throughout society, improving quality of life — reflected in reduced crime and violence, reduced accidents, fewer hospital admissions, and improvements in other social and economic indicators.

TM and TM-Sidhi program experts traveled to Washington from throughout the US and from eighty countries around the world, at their own expense, to participate in the experiment. Over a two-month period, the size of the group increased from 800 to nearly 4000 people.

Violent crime had been rising steadily during the first five months of that year. But soon after the study began, violent crime, measured by FBI Uniform Crime Statistics, unexpectedly began to drop, with the decline continuing through the end of the study. Statistical analysis revealed that the drop in violent crime was correlated with the rising numbers of participants. The maximum reduction took place just as the number of participants peaked at nearly 4000. When the group was largest, there was a 23 percent reduction from what violent crime would have been without that intervention.

The researchers statistically analyzed other factors known to affect crime rates — for example, changes in temperature, precipitation, police and community anticrime activities — but none of these could explain the surprising drop in crime. The drop might have happened by pure chance, but the analysis showed that the statistical odds of this were less than two in a billion.

Decreased crime in Washington, DC



This experiment tested the effectiveness of a large group of consciousness-technology experts in reducing crime and societal stress and improving the effectiveness of government in Washington, DC. Over two months, the group grew in size from 800 to 4,000. When it crossed the threshold size predicted to create measurable change, crime rates plummeted. Alternative models were carefully controlled for in the study analysis.

Key findings:

During the experiment, monitored by a 27-member independent Project Review Board

- homicides, rapes, and assaults (HRA crimes) in DC decreased by 23.3 percent
- violent crimes overall (including robberies) decreased by 15.6 percent

Statistical significance:

- $p < .000000002$ (HRA crimes)
- $p < .00008$ (all violent crimes)

When the assembly ended, the crime rate gradually rose to its previous level. The statistical model indicated that if the group had remained in place long term, violent crime would have dropped by 48 percent.[2]

Other researchers looked at governmental effectiveness before, during, and after the study period. They noted that prior to the experiment, approval ratings for President Bill Clinton had been dropping ever since he had been inaugurated just four months earlier. By the start of the experiment, they had fallen to the lowest level ever seen at that time for a new president — just 36 percent. The news media focused on the discord between President Clinton and Congress.

This downward trend suddenly reversed direction when the experiment started, and President Clinton's approval ratings and positive media coverage surged upward from there. Data from organizations that track approval ratings and media coverage confirmed the increasingly positive headlines.[3]

To analyze changes in quality of city life, the research team studied public data on four variables — emergency psychiatric calls, complaints against the police, hospital trauma cases (motor vehicle accidents and assaultive wounds), and accidental deaths (including suicide). They found that prior to the project, quality of life in Washington had been declining, but that during the project the trend reversed direction. Quality of life became more positive and remained so for some time afterward. In short, the statistics showed that

during June and July 1993 there was a significant and unexpected reduction in stress and an improvement in quality of life in Washington, DC.[4]

The “Group for a Government Global Demonstration,” conducted in Washington, DC, from June 7 to July 30, 1993, tested the efficacy of a Consciousness-Based℠ approach using the Transcendental Meditation and TM-Sidhi programs for reducing crime and social stress and improving the effectiveness of government.

In this carefully controlled experiment, the peace-creating group increased from 800 to 4000 over the two-month period. Soon after the start of the study, violent crime (measured by FBI Uniform Crime Statistics) began decreasing and continued to drop until the end of the experiment (maximum decrease 23.3%), after which it began to rise again.

The likelihood that this result could be attributed to chance was less than two parts per billion ($p < .000000002$). The drop in crime could not be attributed to other possible causes, including temperature, precipitation, weekends, and police and community anti-crime activities.

In this photo, the 4000 participants are gathered on the Ellipse in President’s Park with the White House in the background.

Reducing conflict in war-torn Lebanon

A decade earlier, in the summer of 1983, a similar experiment had taken place in Israel, with even more dramatic results. A group of experts in the TM and TM-Sidhi programs came together for two months in a hotel in Jerusalem. At its peak, the size of the group was larger than the square root of one percent of Israel's population.

This meant that, according to the theory, the effect should extend beyond Israel's borders into neighboring countries. Of particular interest was Lebanon, bordering Israel on the north, where a violent civil war had been raging for eight years. Could a small group of meditators affect situations in another country? Could they create any positive influence on an entrenched conflict that, for eight long years, had resisted every attempt to create peace?

An interesting thing happened during that experiment. Because the group included working people and students who could not participate continuously, the size of the group rose and fell multiple times during those two months.

The scientists analyzed every daily public statistic related to quality of life in Israel that they could get, along with daily statistics related to the war in Lebanon. They found that on the days when the number of participants was high, war deaths in Lebanon dropped by 76 percent.

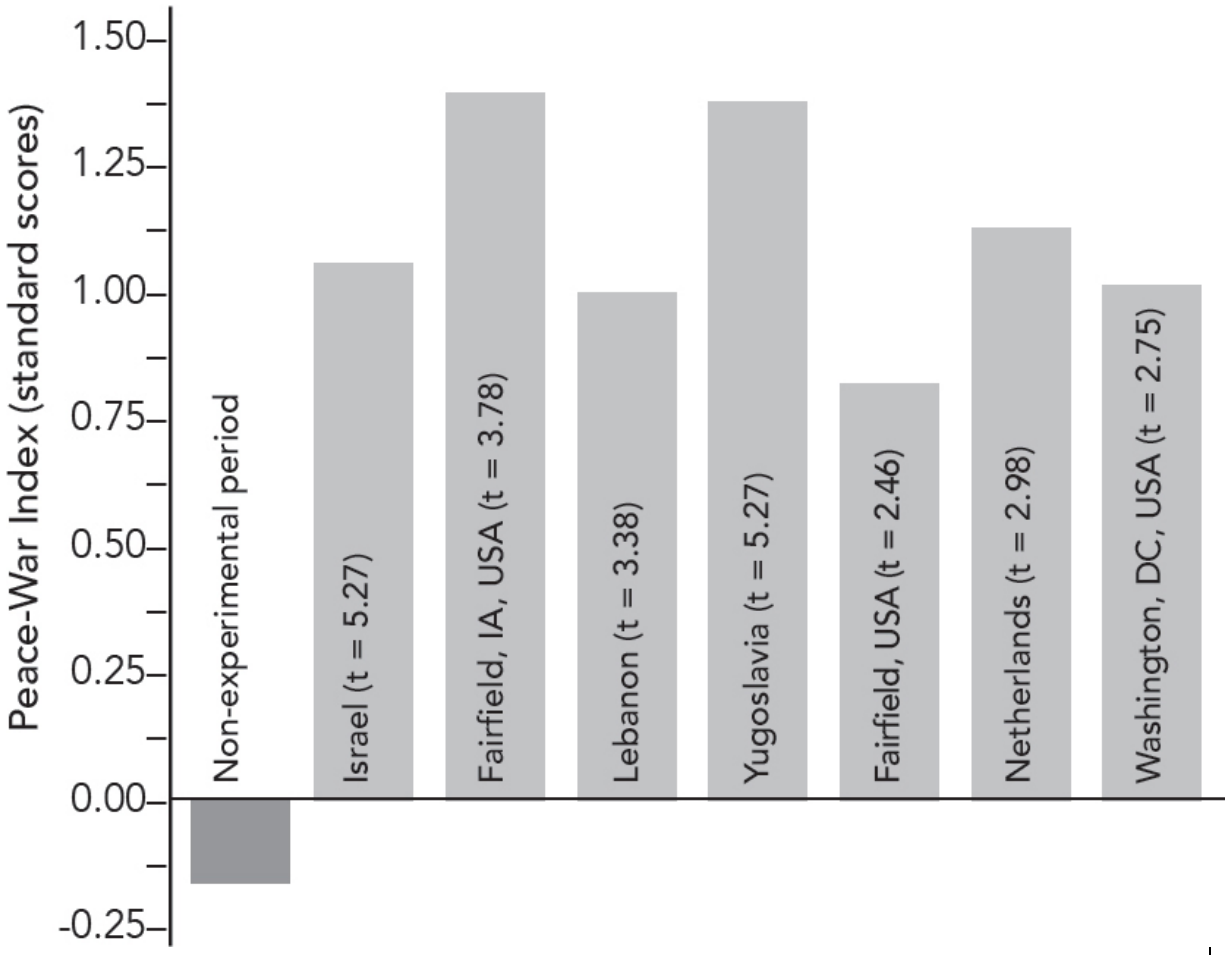
Meanwhile, statistics revealed that quality of life improved in Jerusalem and throughout Israel. Like war deaths in Lebanon, the rates of crime, traffic accidents, fires, and other indicators of social stress in Israel all correlated strongly with changes in TM group size, going down when the size of the group went up and vice versa. Nothing else — weekends, holidays, weather — could explain these changes, and the odds of these changes happening by chance were minuscule.[5]

These results were replicated in six further experiments, for a total of seven consecutive experiments over a two-year period during the height of the Lebanese Civil War. In these other experiments, the groups were not in Israel. In one experiment, the group was inside Lebanon itself. In others, the groups were in Croatia, the Netherlands, and the United States. According to the theory, the larger the group, the more far-reaching its effect, and these groups were large enough, theoretically, for their coherence-creating effect to reach Lebanon despite the distances involved.

Combining the results of all the experiments, scientists found that they produced remarkable effects in Lebanon. On average, war-related fatalities

decreased 71 percent, war-related injuries fell 68 percent, the level of conflict dropped 48 percent, and cooperation among antagonists increased by 66 percent. The odds of these dramatic changes happening by chance were less than one in 10^{19} — a very, very, very small number.

Increased indicators of peace and reductions of violence in Lebanon



This longitudinal study, conducted during the height of the Lebanese Civil War in 1983–1985, demonstrated that large assemblies of peace-creating experts practicing the Transcendental Meditation and TM-Sidhi programs measurably reduced the violence of war and improved progress toward peace. Alternative explanations were explicitly controlled for in the study analysis.

Key findings – Over the two-year experimental period (1983–1985) during the peak of the Lebanon war at that time,

- war-related fatalities decreased by 71 percent ($t = -6.45$, $p < 10^{-10}$)
- war-related injuries fell by 68 percent ($t = -4.91$, $p < 10^{-6}$)
- the level of conflict dropped by 48 percent ($t = -5.81$, $p < 10^{-8}$)

- cooperation among antagonists increased by 66 percent ($t = 4.96$, $p < 10^{-6}$)

Statistical significance – combined improvement in Peace-War Index: $t = 9.03$, $p < 10^{-19}$

Stopping the fighting surrounding my hometown in Lebanon

The Maharishi Effect became very personal to me in a research study I conducted in my hometown of Baskinta, in the mountains of central Lebanon. This was in 1981, when the Lebanese Civil War was at its height. The people of Baskinta had no stake in the war, but with fighting raging all around them, everyone suffered.

One percent of the people in the town learned to practice Transcendental Meditation. Our research found that as soon as we reached that one percent level, it was as if someone had called a ceasefire. The fighting in and around the town stopped. Not only that, but we also found more tolerance, more openness, more understanding, and more happiness among the people. Even the crop yields improved. None of these changes occurred in the surrounding towns. When we ended the study two years later, Baskinta was continuing to enjoy these peaceful effects.[6]

Transforming quality of life in the United States

The longest-running experiment extended for four years and was the subject of a seventeen-year study.

Since 1977, there has been a permanent group of Transcendental Meditation and TM-Sidhi program experts at Maharishi International University® in Iowa, near the center of the United States. From the beginning, the effort has always been to enlarge the group to the square root of one percent of the US population and to maintain it at that size, to generate a permanent coherencecreating effect for the country.

That goal was achieved from 2007 to 2010, when the size of the group reached about 1700 participants, due to a generous benefactor who supported hundreds of people to participate in what was virtually a full-time program.

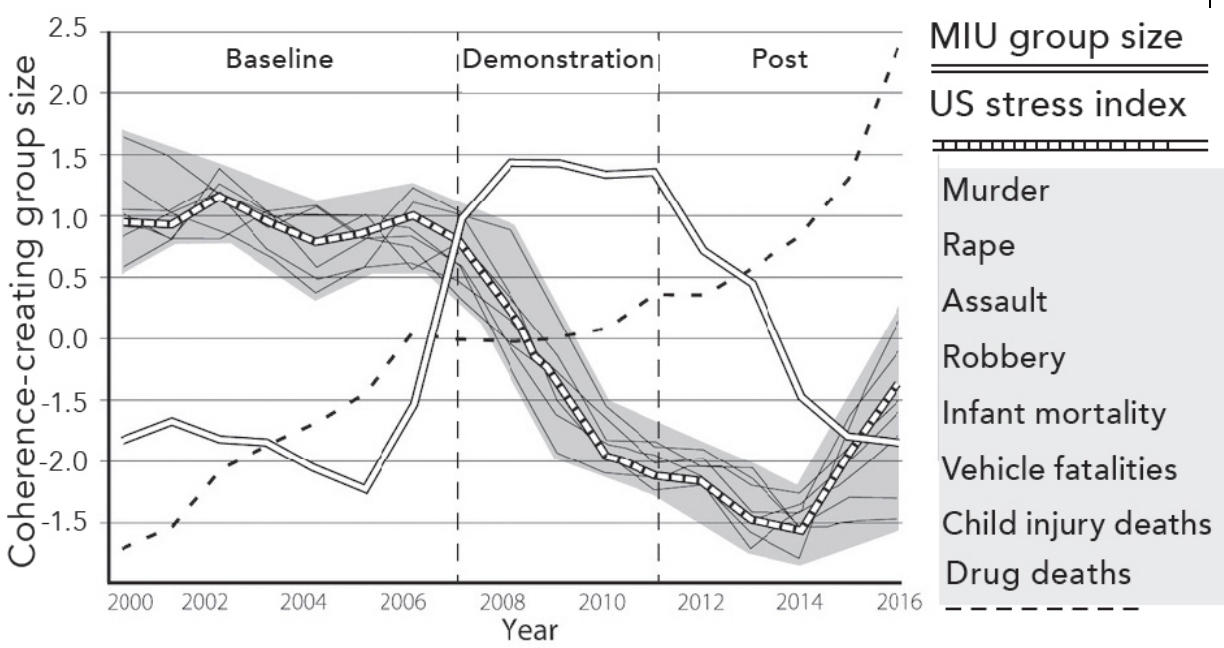
A seventeen-year study, looking at the years before, during, and after this experimental period, revealed that when the group size reached the necessary threshold, quality of life rose significantly across the country. During those four years, murders dropped by 16 percent, rapes by 6 percent, aggravated assaults by 11 percent, robberies by 12 percent, infant mortality by 11 percent, drug-induced deaths (including opioid deaths) by 15 percent, vehicle

fatalities by 21 percent, and child and adolescent deaths by injuries by 18 percent.[7]

However impressive these numbers may seem, they simply do not capture what actually happened — more than 100,000 lives saved and nearly unimaginable savings in human suffering and financial costs.

These are only a few of the experiments that have been conducted. As I said earlier, every experiment has confirmed the predictions of decreased social stress, increased harmony, and improved overall quality of life. Such research results prompt many questions, of course. But whatever else one might think of these studies, they demonstrate that the Maharishi Effect is real.[8]

Broad-based improvements in US quality of life indices



This 17-year study of a large US group of peace-creating experts confirmed that when the group size reached the necessary threshold, measurable positive changes took place throughout the country across a wide range of societal indicators. These outcomes support the theory that this approach enlivens a field effect of consciousness throughout society, resulting in widespread improvements in quality of life.

The gray band represents the variables listed in the tinted box, which track so closely they are almost indiscernible. The “US stress index” represents the composite of these variables.

Drug deaths – the line rises sharply before the demonstration, levels off during it, then rises sharply afterward, representing a 15 percent reduction in drug-induced deaths during the demonstration.

Key findings – During the experimental period,

- murders dropped by 16 percent
- rapes dropped by 6 percent
- aggravated assaults dropped by 11 percent
- robberies dropped by 12 percent
- infant mortality dropped by 11 percent
- drug-induced deaths dropped by 15 percent
- vehicle fatalities dropped by 21 percent
- child and adolescent deaths by injuries dropped by 18 percent

Statistical significance – composite index improvement: $p < .0001$

How are these effects possible?

No conventional explanations can account for these results. The results are not due to chance. Yet there they are.

Maharishi explains this effect in terms of enlivening the *collective consciousness*. Just as each of us has an individual consciousness, there is a collective consciousness of a society. The consciousness of every individual in a society gives rise to a unique quality of collective consciousness for the society as a whole. This in turn influences the consciousness of the individuals.

In other words, a society composed of stressed and angry individuals creates an angry and stressed collective consciousness, leading to crime and other problems, whereas a society made up of happy and healthy individuals will be a happy, healthy society.

The interesting thing about the Maharishi Effect is that it does not require everyone to meditate. A small percentage of people transcending creates an entrainment effect that transforms the entire collective consciousness. This resembles how a small number of coherent neurons in the brain leads to coherent brain activity and how a small number of coherently moving photons can induce all the other photons to become coherent, creating laser light.

But we still have the question of how a group of advanced meditators can influence the behavior of other people far away, without interacting with them directly.

The Maharishi Effect exemplifies a larger phenomenon known as *action at a distance*. We're all familiar with this phenomenon, even if we don't know its name or understand how it works. We take advantage of it every day. Every time you use your cellphone to make or take a call, send or receive a text, check social media, or use GPS navigation, you are utilizing this phenomenon. The electromagnetic signals that come to and go out from your phone are carried by an underlying, invisible, all-pervading field — the electromagnetic field.

The Maharishi Effect must also be carried by a field. Which one is it? Not the electromagnetic field. Although the human brain's electrochemical activity does generate a small electric field, it doesn't have anything like the power required to span the distances we're talking about here. That leaves three other physical fields. There's the gravitational field, but its effects are

slight. Then there are the fields created by the strong and weak forces, but they function only within the atom.

There is one other possibility. We believe it must be the *unified field*, also known as the *superstring field*. This field underlies the four fields of physics I just mentioned.

Consciousness and the unified field

If this is so, it has breakthrough implications. The Maharishi Effect can be possible only if human minds are anchored in and connected by an underlying field, which must be a field of Consciousness. If this field is the unified field, then the unified field — the field that gives rise to all the force and matter fields and from there to the whole universe — must be a field of Consciousness. This in turn supports our proposition that Consciousness is primary, that everything in its essence is Consciousness.[9]

Now we have tentative answers to the two questions at the beginning of this chapter.

First, is there objective evidence to support the theory that Consciousness is all there is? Yes — the results of the many studies on the Maharishi Effect.

Second, does this theory have any practical value? I trust you can see that the answer is a resounding yes. This large and continuously growing body of research on the Maharishi Effect shows that these simple, natural, effortless meditation techniques are literally *technologies of consciousness* — that is, they produce measurable, repeatable, and significant effects, for both individuals and society. They are also *technologies of peace* — systematic, reliable methods for creating harmony and peace in society.

Remarkably, the positive changes in society are both the evidence for this technology and its practical application.

It is difficult to convey how significant this discovery is. Think about what it means that as little as the square root of one percent of a population of a city or a nation can produce these broad-spectrum results. France, for example, would need a group of about 800 people to accomplish these results. The UK, also about 800 people. The United States, fewer than 2000. China and India, fewer than 4000 each. And for the entire world? A group of fewer than 10,000 people.

Let me put this into a larger context.

Throughout the ages, people have desired peace. Yet throughout the ages, lasting peace has remained as elusive, rare, and fleeting as glimpses of higher

states of consciousness. Yet the need for peace is as crucial today as ever. Our global village is so interconnected that any war anywhere affects all of us, emotionally and economically. The Cold War may be over, but about 12,500 nuclear warheads remain,[10] and these days even a local war risks triggering the nuclear option and an ensuing global catastrophe.

There has been no shortage of attempts to create peace. Thousands of peace treaties have been signed over the past several millennia, but none has lasted very long. International organizations like the United Nations have been helpless to prevent wars. Nor can war itself ever be a pathway to peace. Wars may come to an end, but the horrific trauma they inflict sows the seeds of further wars. Violence begets more violence.

Addressing the problem at its source

The experience of history suggests that lasting peace is a futile dream. But peace treaties and peace-keeping organizations have failed to prevent war for a simple reason: they have not addressed the root of the problem.

What is that root? The answer is simple. We know that as stress builds in the individual, it can flare up as anger, aggression, or illness. In just the same way, as stress builds in society, it can erupt as crime, violence, or war. Individual stress and societal stress, moreover, are closely related, as I indicated above. Stressed individuals add to the societal stress, and rising societal stress intensifies individuals' stress — a classic vicious cycle.

Peace treaties and peace-keeping organizations fail to neutralize the underlying societal stress that gives rise to wars in the first place. Failing this, anything else they might do is superficial and ineffective in the long run — band-aids over a much deeper problem.

"Since wars begin in the minds of men, it is in the minds of men that the defenses of peace must be constructed," declares the charter of the United Nations Educational, Scientific, and Cultural Organization (UNESCO). This is a profound point. It states that peace begins within. And it might have been put to practice long ago but for one thing: there has been no systematic way to create inner peace. Lacking this, there has been no way to create societal peace, no way to prevent societal stress and tension from accumulating — no way to prevent war.

But now we have technologies for creating inner peace, technologies so powerful that even small groups of people can create inner peace in the whole society, transforming it for the better — technologies that take advantage of

the reality that Consciousness is all there is. Here is an extremely low-cost approach to creating peace in the world that even a single wealthy individual or family could endow for generations into the future.

Enlivening nature's source

Let's look at this from one more angle. Transcendental Meditation and its advanced techniques, as taught by Maharishi, are effective technologies of consciousness because they enliven and harness the indomitable source of all power and energy — pure Consciousness, the unified field, the source or home of all the laws of nature.

By creating a coherent, integrated national consciousness, these technologies create an invincible shield for a nation — and ultimately the world — that prevents any negativity from penetrating from the outside or arising from within.

In terms of love, compassion, and unity in diversity, the unified field is like the sap of a tree or a flower. The same sap appears as the many aspects of the leaves, branches, stems, and flowers. We all are expressions of the unified field.

Until two thousand five hundred years ago, many people believed the world is flat, but (except for a few people) we have moved past that. In the same way, we need to rise above the limitations of the classical perspectives on reality that most people continue to accept as valid.

Today, it's erroneously believed that our world is made of separate, unrelated objects and phenomena that appear and disappear in time and space. We need to look at reality as science reveals it and use a more advanced technology to confront and solve our problems.

Power can be harnessed on all levels. On the surface level, there is mechanical power. The deeper we go, the more power we find: biological power, chemical power, and molecular power, accessed at the genetic level. Harnessing the power at the atomic level, we have created nuclear energy to generate electrical power that can make people's lives more comfortable and nuclear weapons that can destroy life altogether.

Deepest of all is the unified field, the home of all the laws of nature that silently structure and maintain the infinite diversity of all that is manifest. This is not science fiction, but rather the most accurate scientific picture of the universe we currently have.

Reality is not limited to what our sensory equipment can process. Corresponding to the refined layers of the physical world uncovered by objective science, we find progressively deeper levels of subjective experience, from perception and thought to feeling and intuition.

With greater awareness and broader consciousness, we can use higher individual and collective intelligence and become capable of solving the problems that deeply concern us, from climate change to poverty, from economic inequality to border disputes, without becoming mired in political bickering or resorting to war. Resolving differences by using intelligence rather than fighting is always more advantageous for everyone.

The more developed our consciousness, the greater our freedom, the greater our creativity and intelligence, and the greater our ability to solve the problems that worry us.

The core issue here concerns the level of individual and societal consciousness. The more limited our awareness, the more constrained our freedom and ability to make effective decisions. This is as true for nations as for individuals. We need to elevate individual and collective consciousness, awakening maximum intelligence in every individual and every society and raising life on Earth from problems and suffering to its natural heavenly status.

Awakening to our unbounded reality

More basic than mind and intellect is the field of pure Being, the unified field, the source of everything in the universe. It is the primary field of relationship, coherence, and interconnection. It is the great wholeness in which all the apparent parts are expressions of one singularity, infinite waves of the one ocean of Consciousness.

When you ask people who they are, they typically answer with a name, a profession, a hometown, perhaps a nationality, maybe their educational or professional credentials. When confined to these outward definitions of the self, we remain isolated within the boundaries of a gender, family, group, society, nationality, or faith. We may distrust or fear others who define themselves differently. Love cannot flourish within these incomplete and self-limiting conceptions of the self.

“Certainly fear is born of duality,” says the Vedic literature.[11] Whenever there are two, there is always the possibility of clash, of one diminishing or destroying the other. Even within ourselves the mind can clash with the heart

and selfish desires clash with our sense of responsibility. Within this duality lie the seeds of fear and hostility and the potential for conflict and violence.

Can we resolve this perception of duality, this sense of *the other*? Not on the surface. We are called instead to transform ourselves, our way of perceiving others, such that we experience the unity beneath our superficial differences. This unity runs far deeper than our outer identities and worldviews. When we finally experience this hidden unity, we discover deep down that we are the other, that *we are everything*, the totality.

For some, this may sound like a lofty notion, an intellectual construct that can never work in real life. But such a view is shortsighted, failing to grasp both the principle and the supporting evidence.

Knowing who we truly are is the starting point for all solutions, for ourselves and our world. Because who we really are is unbounded pure Consciousness, pure bliss — the Self. This is who everyone and everything really is. This self-knowledge transcends race and religion, gender and beliefs. It sets us all on an equal footing, as universal citizens of the world, children of God, members of one all-inclusive family.

All the great traditions in the world have guided us toward this inner awakening: “Know thyself.” “Seek the kingdom of heaven, which is within you.” “Thou art That.”

Now science has also revealed that separateness is superficial if not illusory. The deeper science delves, the more certain it becomes that we are one unified field, an unbounded ocean of pure Being. This unity of life, long understood in spiritual terms, is coming to light through the revelations of science.

This is the true meaning of *Know thyself*. The unified field is the source of everything and everyone, and as our own awareness opens to it, we arrive at that most intimately personal discovery — we are one with everything. We awaken from the dream of duality to the oneness of which everything is created.

This awakening requires no effort. It happens naturally from the repeated experience of pure Consciousness within. Repeated experience — many small, daily awakenings, glimpses that come and fade away — eventually results in one expansive, permanent awakening to the unity of our true nature.

This is the best hope we have for peace: gaining the experience of inner and outer unity.

Coexistence of opposites: unity in diversity

Differences between peoples and cultures need not be a problem. Differences are beautiful facets of creation's glory, the myriad colors, shapes, and fragrances in the garden of life for everyone to enjoy.

Yet differences, as we've discussed, hold the potential for division, fear, and conflict. So, if differences are not the problem, what is?

When our consciousness is narrow and underdeveloped, we see only differences, only what separates us. As our consciousness grows, we see more broadly and deeply. We discern the inner unity of life along with the differences, the source of life's glistening variety. We see pure Consciousness, pure Being, the ever-present fountainhead of life.

I believe that our collective evolution as human beings is bringing us to this understanding and to *living* this harmony as our shared reality. I see this especially in the youth, who more than ever are transcending national, religious, racial, and other boundaries to form friendships and partnerships across the globe.

This is supreme fulfillment in education, where, knowing ourselves to be pure Consciousness, we are established in the field of infinite freedom and creativity, in tune with total natural law. In this awakened, enlightened state, we spontaneously uphold life's most evolutionary values. We enjoy outer differences while knowing deeply and profoundly, through direct experience, the underlying unity that upholds all diversity. This is the basis of tolerance, compassion, and love.

Groups practicing the technologies of consciousness will enliven and awaken this reality throughout society. Differences will remain on the surface, but we will live life in profound peace and unity.

This is the opposite of stress and fear, division and anger. When instincts gain the upper hand, the fight-or-flight response overtakes the human nervous system and love takes a back seat. Under stress, the rational mind shuts down, compromising our values, ideals, and integrity. This is as true for societies as for individuals. By contrast, when we're rested and calm, we have a clearer perception of reality and make better decisions. For this, we must be able to go back to the Self, to the inner core of our being. This is what the Transcendental Meditation program accomplishes.

We desperately need an effective solution to our global epidemic of conflict, violence, and war. And we have one. Its cost is ridiculously little compared to what is spent on armaments. It has been demonstrated again and again. The research is beyond doubt. We already possess a technology to accomplish what humanity so badly needs.

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PART V

Implications for Human Flourishing

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CHAPTER 21

DO WE HAVE FREE WILL? How Do We Expand Our Freedom?

Are we free to think, act, and choose as we wish? Or is everything predetermined, as many modern philosophers and scientists claim? And if we do have freedom, how can we expand it?

The debate around human free will versus determinism reaches back millennia, in both Eastern and Western traditions, engaging thinkers in philosophy, science, and psychology.

Yes, we're conscious; we can observe, interpret, and understand. But are we actually free to choose, to change things? Or are we just instruments of physical processes, our lives fully preordained?

Our worldviews influence how we answer these questions. Strict materialists, believing that physical laws determine everything, hold a deterministic viewpoint.

Yet most of us believe we have free will, and we cherish our freedom. Our legal, social, and religious systems also presume that individuals act based on their own free choices. When someone commits a crime, they may be punished because they presumably could have chosen differently. Punishment often involves limiting the perpetrator's freedom, as with imprisonment.

I'd like to make a few observations about freedom and determinism and then show what the Consciousness paradigm adds to the discussion.

The case for determinism

Over the past 400 years, we have systemically uncovered the laws of nature, revealing clear cause-and-effect relationships in most phenomena.

Yet even the esteemed Isaac Newton doubted that a mathematical deterministic solution could encompass everything in the universe. When Newton discovered instability in the movement and orbits of the planets, he

concluded that periodic divine intervention was necessary to guarantee the stability of the solar system.

But Pierre-Simon Laplace, the brilliant mathematician, physicist, and astronomer often described as “the Newton of France,” dispensed with the hypothesis of divine intervention. In 1814, in the first Western articulation of scientific determinism, Laplace wrote:

> We may regard the present state of the universe as the effect of its past and the cause of its future. An intellect which at a certain moment would know all forces that set nature in motion, and all positions of all items of which nature is composed, if this intellect were also vast enough to submit these data to analysis, it would embrace in a single formula the movements of the greatest bodies of the universe and those of the tiniest atom; for such an intellect nothing would be uncertain and the future just like the past would be present before its eyes.[1]

From a materialist perspective, Laplace’s deterministic point of view is hard to refute. If there is law and order in the universe, then every action has a specific reaction, every effect has a cause, and the world runs like a clock.

In the 1970s, Benjamin Libet, a researcher at the University of California San Francisco, published research appearing to indicate that our sense of free will is illusory. He discovered that unconscious neuronal processes precede and potentially *cause* a subject to move or act *before* the subject becomes aware of the action.

When, for example, Jane appears to raise her hand in a restaurant, she believes she consciously decided to do so. But Libet’s and others’ studies suggest that something unconscious compels her to raise her hand even before she becomes aware of it. Within milliseconds, however, a part of her brain (often called *the interpreter*) kicks in and justifies why she raised her hand: “I want to attract the waiter’s attention.”

In other words, if consciousness emerges from matter, and if all matter is subject to the laws of physics and the principle of cause and effect, then it’s impossible for us to intervene in this process — we might believe we’re choosing between chocolate and raspberry ice cream, but that decision has already been made in the blind interactions of the particles and forces that make up our brains.

Many scholars, particularly those who believe in reductionist causal determinism, cite Libet’s and similar studies as proof that humans have no conscious free will.

But more recent analysis of these studies shows that many contain methodological inconsistencies and conflicting results. In many cases, the researchers who opposed free will interpreted their results to support their

position, often basing their conclusions on speculation, not on assessments of the neural activity in question.[2]

Deterministic arguments often hinge on the assumption of materialism — the belief that everything, including consciousness and human behavior — can be explained solely by the interactions of physical matter and the laws of physics. If this is so, then why are there so many phenomena that elude this explanation?

Freedom and creativity in nature

The concept of freedom has long been associated with human autonomy and agency. Yet while the deterministic laws of classical physics might seem to constrain every particle and process, making every activity in nature theoretically predictable, the natural world displays an astonishing array of phenomena that defy predictability and exhibit new and unexpected behaviors, suggesting the existence of freedom in nature.

Indeterminacy at the quantum level presents a profound argument for freedom in the natural world. As we've seen, quantum mechanics challenges the deterministic worldview of classical physics. The famous Heisenberg uncertainty principle asserts that the more precisely we know the position of a particle, the less precisely we can know its momentum, and vice versa. This inherent uncertainty suggests that at this fundamental level of reality there is an intrinsic limit to predictability. Subatomic particles exhibit a degree of unpredictability that seems to grant them a certain degree of freedom in their behavior.

Even at the macroscopic level of nature we find remarkable examples of freedom.

Take the simple example of snowflakes. As individual water molecules freeze and crystallize, they create intricate and unique patterns. Though the process is uniform, each snowflake possesses its own distinct and unpredictable shape. This uniqueness hints at a form of freedom inherent in the natural world, allowing even seemingly simple processes to yield diverse and unpredictable outcomes.

Snowflakes exemplify a phenomenon known as *emergence*. We find the phenomenon of emergence throughout nature: simpler elements coming together to create more complex structures with surprising new behaviors — atoms combining to form molecules, molecules to form cells, and so on. There is nothing in the behavior of one level that predicts the next. Nothing in

elementary particles or molecules, for example, predicts the emergence of living cells. Each new, emerging level of complexity gives rise to unforeseen laws, attributes, and phenomena.

Water offers a good example in the realm of chemistry. Water displays the properties of cohesion, adhesion, and surface tension. But you could never predict these properties by examining individual water molecules. They arise instead from the molecules' collective behavior.

In the domain of biology, the evolution of species offers another compelling example of freedom. While guided by natural selection, the process of evolution results in an astonishing diversity of life forms, each adapted to its environment in unexpected ways. The countless variations in species demonstrate the flexibility and adaptability of life, suggesting that even within the constraints of natural selection there is room for freedom and creativity.

The human body and brain offer a stunning example. Consider the myriad emergent phenomena, from the quantum level on up, the increasingly complex processes and structures building one atop another that culminate in the bodies we inhabit.

We find emergent phenomena in animal behavior. Flocks of birds, schools of fish, and swarms of insects exhibit intricate and unpredictable collective behaviors — ants forming living bridges, for example — that cannot be traced back to a single controlling entity, showcasing another form of creativity and freedom in the natural world.

Everything we observe in the world around us, its incredible diversity, its marvelous richness — all of this is emergent, unpredictable, unexpected. The universe itself is emergent. The whole is not just more than the sum of the parts, it's radically different.[3] How this happens remains an enigma, one of modern science's grand challenges.

Freedom, health, and well-being

Even those who believe in determinism think and act as if they were free. And however much people philosophize about free will and determinism, whatever side of the debate they come down on, freedom remains a powerful asset for creativity, progress, and evolution, a necessity for individual and social happiness and fulfillment. We all like to be able to do what we desire, without restriction.

The belief that we have the capacity to make choices and shape our own lives supports good mental health. It fosters a sense of empowerment and control, allowing us to take charge of our circumstances, seek solutions, and work toward our goals, reducing feelings of helplessness and boosting self-esteem.

Conversely, beliefs in determinism can have varied effects on mental health. Of course, understanding that certain events lie beyond our control — the death of a loved one, for example — can alleviate feelings of guilt or self-blame. But an excessive belief in determinism can also lead to a sense of powerlessness, futility, and lowered self-esteem. As many studies suggest, it can also lead to behaviors like cheating, because when people think their actions are predetermined they tend not to feel responsible for them.

Given the astounding creativity and the countless emergent marvels we find throughout the natural world, can we not concede that human beings, endowed with brains that may be the most complex structures in the universe, possess some degree of freedom? In any case, the idea that we lack free will remains a speculative and unsubstantiated theory.

From here on out, then, we are going to assume we do possess free will. Our question now becomes: How do we expand that freedom?

Broader consciousness: greater freedom

Our starting point is Consciousness itself. Free will is inconceivable outside of Consciousness. To be free means there is a conscious deliberator capable of steering the course of events as they wish. Free will cannot be unconscious or nonconscious — that would be absurd. Consciousness is a prerequisite for freedom. The question of free will, therefore, ultimately brings us back to the nature and origin of Consciousness.

We assert that Consciousness is not an ethereal phenomenon emerging from matter but that Consciousness is primary, the stuff from which everything emerges. Consciousness is absolutely, boundlessly free. It exists outside the confines of space, time, and causality. It embodies all possibilities and infinite potentiality.

Manifestation is based on freedom, as I've explained. As Consciousness assumes perspectives on itself, taking different roles to such an extent that its own unbounded status becomes hidden, it cedes some of its freedom — sometimes almost all of it — but never the entirety. Even elementary particles and stones retain some speck of freedom.

The more complex the structure, the more freedom it retains. We human beings, with our incredibly sophisticated brains and nervous systems, retain a considerable degree of freedom. But we always desire more — we are inherently impelled to rise above our boundaries and limitations.

Higher states of consciousness open up vastly greater degrees of freedom, more expanded perspectives on ourselves and the world around us, as far beyond ordinary waking consciousness as waking consciousness is beyond deep sleep and dreaming, yet entirely and equally natural.

The two aspects of freedom

Freedom has two aspects. The first has to do with the limits to our imagination, the second with the limits to our abilities. Let's look at each of these.

Limits to our imagination

We cannot choose something that we cannot imagine or envisage. The more expanded your consciousness, the more you can imagine and the wider range of possibilities you can choose from.

But choice requires more than a set of options. You must be aware of your options and consciously select one or another. At a higher level of freedom and choice, you must be able to assess the consequences of your choice. At a higher level still, you must be able to free yourself from some of the constraints that compel you to act in certain ways. Only then can you make the most evolutionary choices.

We have freedom to make choices, and the nature of our choices — whether reflexive or reflective — depends on our level of consciousness.

Most of us are stuck in a set of beliefs about what we can and cannot do, what is and isn't possible. This is as true for society as for individuals. These limitations in consciousness are part of our package of personal qualities, strengths and weaknesses, social conditions, family expectations, religious and cultural imperatives, and past behaviors bearing fruit or thorns in the present. We are also constrained by the laws of nature and our personal and speciesspecific genetic heritages.

We live our lives as we do because we embody a pattern, a conglomeration of qualities and influences moving among other patterns in an infinitely complex field of patterns. A few of those patterns are largely stable and

unchanging — we call them *laws of nature*. Others are evolving, ever-changing.

You've probably heard the parable of a group of people asked to describe an elephant hidden in a boxcar, each observer having only a small hole to look through and able to see only part of the elephant. Not surprisingly, their reports vary:

"It looks like a big snake!"

"It's like a tree trunk in there."

"I see something like a brush."

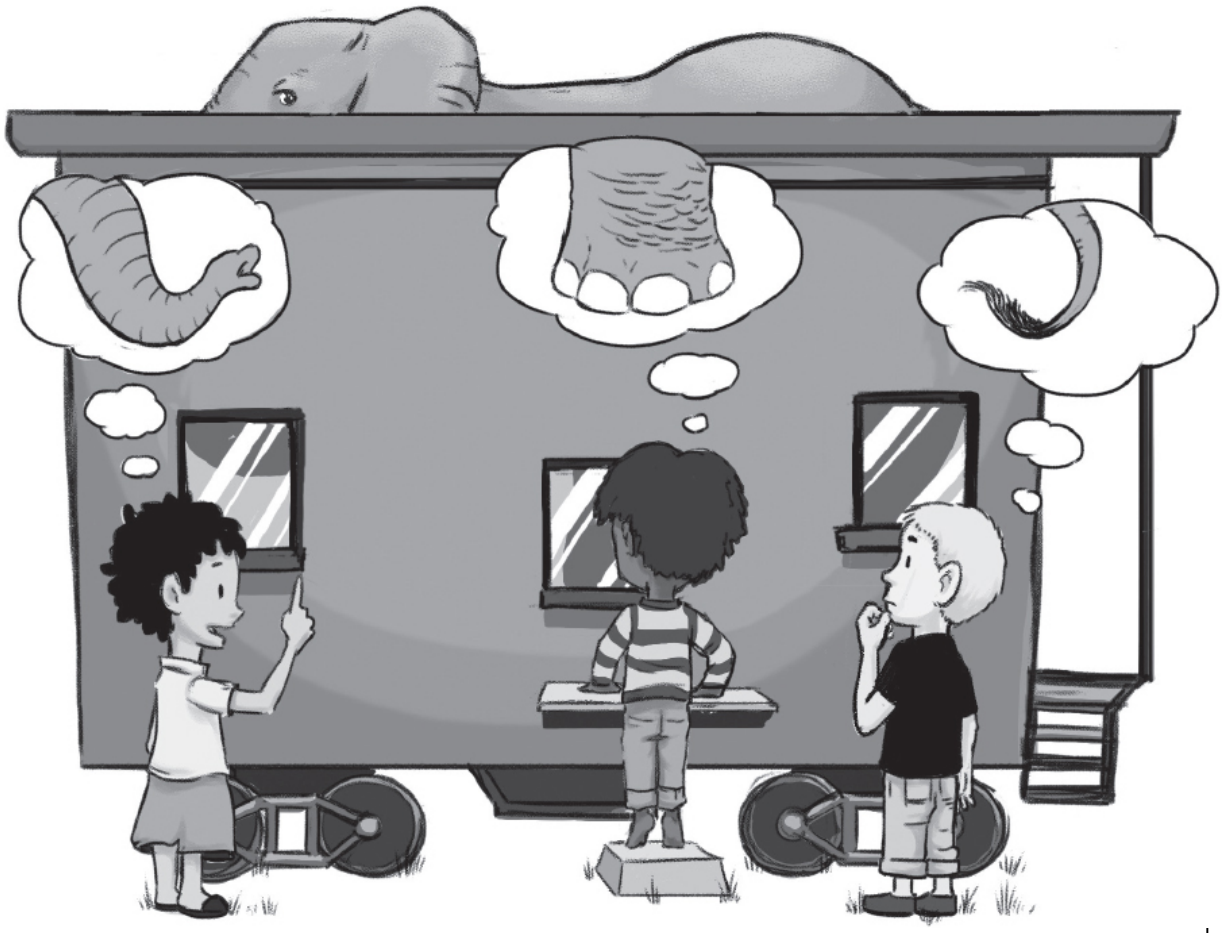
The reality we perceive depends on our point of view, on the perspective from which we see things. What makes our point of view unique and different from that of others is embedded in the pattern and structure of what we are.

Human beings as a species have a certain pattern — a general physical structure, a range of heights and weights, perceptual and functional capabilities both physical and psychological. And of course, as individuals we each have a unique set of operational parameters within that general range.

Each pattern has its own point of view about reality, with a unique sense of space, time, relation, and possibility. These values vary according to our state of consciousness, which in turn is related to our physiology.

Every state of conscious awareness has its unique style of physiology. To be conscious in this physical body means there is a pattern of physiological functioning that parallels and accompanies each state of conscious awareness. Change that pattern and you get a different consciousness experience. The reality you see and live in depends on what you bring to it, on what you are.

Limited perceptions produce limited realities



The children looking into the boxcar may come up with wildly different ideas about what they're seeing because they see only isolated parts, not the whole. If we perceive only a small part of what is there, we evaluate what we're seeing based on that limited vision. Expanded awareness perceives ultimate reality as one ocean of Consciousness appearing as multiplicity.

We are also constrained by our karma. The flow of our life choices in the past reinforces the same patterns in the choices we make today. And the actions we take today will affect all our decisions and actions in the future.

For example, we have a huge ability to shape our health through our choices about diet, exercise, sleep, and environment. The same is true in every area of our lives. The work we do and how well we choose to do it, how we conduct ourselves in our relationships and the people we choose to associate with — all these choices affect whether we progress or not, are happy or not, are vibrantly healthy or one step away from the emergency room or anywhere in between.

Every experience you have, every instance of consciousness you have, creates possibilities not available to you before. Every moment of consciousness opens a door to possibilities, and every mode of being carries those possibilities forward. The lesson in this is that we have a way — simple and readily available almost every minute of every day — to influence our development, our happiness, and our usefulness to others. We can choose which possibilities we pay attention to, which to actualize, and which to reject.

This fact — all too often forgotten — is both exciting and cautionary. Everything we decide has consequences that change our lives in ways small or large, in negative ways that create suffering and limit our freedom or in positive, progressive, evolutionary ways that promote happiness and expand our freedom. By being selective in the choices we make and the possibilities we develop, we influence our personal development and the well-being of all life on this planet and beyond.

Our ability to choose well depends on our level of consciousness. Our possibilities are potentially infinite, but in practice, as we live our lives, we move through a finite channel within this roiling, vibrating infinity. The channel is not rigid — it can be altered — but what it is right now, at any point, is inevitably constrained by our own pattern, our unique observer ability, the laws of nature operating in and around us that govern our experience, all the patterns available to us, and our karma. As we move through the movie of our lives, these things limit our potential perspectives and possibilities.

A microscope enables us to see cellular and molecular structures, but a scope with greater magnification can see more. With good binoculars, we gain a clear view of objects a few hundred meters distant, whereas with a home telescope we can see mountains and craters on the Moon and the rings

around Saturn. The giant mountaintop observatories and the Hubble and James Webb space telescopes bring cosmic life into view. It depends on the quality of the instrument.

Like that, the quality of our own living instruments, our brain and physiology, the essentials of our pattern, allow us to live only within certain boundaries and constraints and not beyond.

The pattern of your individuality must evolve within those constraints. The more you liberate yourself from them, the more the river of your life can widen and flow freely, and the more you can transcend the boundaries gripping you.

The desire to have more, be more, and experience more is natural, part of the flow of life upward in the manifest pyramid of personal consciousness, toward higher consciousness, higher truth, greater fulfillment, and enlightenment.

Intelligence is the ability to make purposeful choices to preserve the self and expand our fulfillment — to rise in the manifest pyramid. This leads to even higher, more comprehensive awareness, an expanding sense of self. As our consciousness expands, all the things we used to see as different and separate — from my small ego and narrow self to my family, my business, my society, my nation, my environment, my world, my universe — all these things we now increasingly recognize as expressions of our self. Ultimately, in Unity Consciousness, I experience *everything* as myself. This expansion naturally and spontaneously brings increasing compassion and a greater desire for all good for everyone.

Limits to our abilities

The second aspect of freedom concerns our ability to achieve what we desire.

You can always decide what color shirt to wear; it’s not so easy to decide to be an Olympic champion. Imagining something is one thing — achieving it is another.

Yet here again, the more highly developed our consciousness, the greater our ability to fulfill our desires. This is because more fully developed consciousness not only widens our perspective and increases the options available to us but also enlarges the creativity and intelligence we bring to bear in acting to achieve our desires.

Recall the analogy in an earlier chapter where I compared our lives to movies on a hard drive of infinite capacity, storing all possible images,

sounds, and interactions. We watch the movie of our life in a specific sequence, giving the sense of a single storyline unfolding in the passage of time. But with sufficient knowledge (consciousness) of the limitless possibilities in the drive, we could choose any images and any sequence — we could change the narrative in any way we like.

This is where your freedom lies: in navigating the options and making choices, within certain constraints, based on your decisionmaking abilities. If your pattern does not allow you much freedom to change and grow because of what you and all of us have preconceived, you are confined within that narrow range of possibilities and will remain there until you develop others. The more restricted you are by your thoughts, education, physiology, and so on, the fewer choices you have.

On the other hand, the more unbounded you are, the more possibilities will open up for you, ultimately leading to the ability to know and to live all possibilities, to go anywhere you want and experience anything you desire.

Yet you don't need to go far to taste every possible experience because it's all here: the whole multitude of possibilities and universes is right here, right now. Every bit of it is alive within the wholeness of Consciousness, that ultimate reality that is the ultimate real you.

This brings us to a profound principle: The more expanded our awareness, the more aligned we are with nature's intelligence — with the all-powerful flow of evolution — and the more we're able to engage the infinite power of Consciousness to fulfill our desires. Align your boat with the river's current and you will be propelled effortlessly downstream. Steer crosswise and you will struggle.

With restricted consciousness, we inevitably steer crosswise. Our awareness is simply not broad enough to encompass the totality of nature's intelligence; we harness only a fraction of its power. Life can be a struggle. We achieve some desires but are thwarted in the pursuit of others. We experience some fulfillment but also considerable frustration.

When our awareness is unbounded, on the other hand, wide awake in the source of nature's intelligence within Consciousness, then our every thought, word, and action is spontaneously in harmony with the flow of evolution. Nature's intelligence supports our desires — we harness the total potential of natural law to achieve our goals, meaning we can fulfill our desires without struggle or effort.

In short, with a higher level of consciousness, we are aware of more, understand more, and are less bound by past patterns of thinking and

behavior. We have greater freedom of choice and action because we see more possibilities. We have a richer experience of the outer values of life and are more awake to the underlying unity that connects us all on a deep level of silent awareness. We have greater ability to achieve our goals. We live in supreme inner and outer fulfillment.

Human beings can attain Unity Consciousness. We can rise to experience the underlying Absolute in every aspect of the relative — experience everyone and everything as our own Self. This is supreme Self-realization, the direct experience that the one unbounded ocean of Consciousness is all there is and that this is my Self and your Self and the Self of the universe.

We have set aside an important question in all of this: How do we ensure that we use our expanding consciousness and power for good? How do we ensure that we live moral, virtuous lives so not only do we avoid harming anyone but our thoughts and actions are always beneficial to those around us? We'll explore this question in the next chapter.

Further reflections on freedom

Freedom, responsibility, and law

Every country creates laws to maintain order — to organize society, protect individual and societal rights, and manage how we deal with each other and the environment.

The rule of the ocean is that the big fish eat the small fish. In the jungle there is no sense of right or wrong. Predators feed on each other — might is right. But in human society, to coexist harmoniously we establish rules for protecting our members. We aim to make *right is might* the guiding principle and continually strive to define precisely what *right* means.

Legal, political, and social systems struggle mightily to adjudicate personal freedom and a free-choice society. Laws are continually written, revised, and even reversed as new circumstances arise. Courts at one level often disagree with courts at another.

Thus, human law itself may be inherently indeterminate; that is, there is no immutable logic that forces a single conclusion. Was it theft, a setup, or an innocent mistake? Free will in the legal system requires creative, nondeterministic free thinking among legislators, judges, lawyers, and juries. It certainly involves constant change and revision. In the law, there are few elements of fully determined certainty.

The freedom to do what we desire is necessary for happiness and creativity, provided our free choices do not harm others. This freedom is kept in check by man-made laws, customs, traditions, and ways of life characteristic of different cultures and nations.

Depending on the nation's collective consciousness, laws may either help or hamper human and social development. The more rigid the culture, the safer some may feel but the less creative and progressive the culture may be. The freer and more flexible the culture, the more innovation and progress it may enjoy but the more uncertainty and disruption it may face and the more its laws may be questioned or broken. Balance is always needed.

Tight control of human behavior under narrow man-made laws can hinder creativity and obstruct progress. Then the force of evolution will push people to create new laws until the next level of progress is achieved.

Natural laws and man-made laws

Compared with the laws of nature that manage the universe — the laws of physics, chemistry, and biology, also of psychology and sociology — man-made laws can be incomplete or inequitable, in or out of tune with natural laws — another reason why they are often changed.

Moreover, it's possible that adhering to a natural law requires violating a man-made law.

Imagine a doctor, a specialist in emergency medicine working in a remote town, who gets a call late one night from frightened parents whose daughter is suffering a severe asthma attack. Her life depends on the doctor arriving in time to treat her. The doctor jumps in her car and, driving through the empty streets, exceeds the speed limit and drives through a red light.

Technically, she could be arrested for breaking laws designed to support safety and well-being. Yet, from a broader perspective, she acted appropriately to save a life.

As we will see, as our consciousness grows, we gain increasing ability to act in a way that is spontaneously beneficial at all levels.

Freedom, determinism, and advances in neuroscience

In the deterministic viewpoint, you might be able to do what you think you want — but can you actually want what you want? Can you decide freely, making genuinely unilateral choices? Or are you a kind of somnambulist

making yourself believe you are deciding? This is not just a theoretical question — it bears profoundly on responsibility, reward, punishment, and the entire legal system.

Modern neuroscience is advancing quickly and will most likely find physical correlates for every decision and action. Will this mean that criminals can get away with crimes because scientists can prove they were motivated by compromised brain circuits, neurons firing the *wrong* way? And who will define the wrong way and the right way?

To answer, recall a rule of thumb I discussed earlier. The *right* way is upward in the synthesis direction of the manifest pyramid: develop higher consciousness so that more of the supreme intelligence of consciousness is infused into your personal decision-making.

Freedom and religion

The most widely held belief throughout human history has been that there is a creator who designed the universe, decreed its laws, and put us in it — though the details vary according to the belief system. To what species God or nature has given consciousness and allocated freedom also depends on one's worldview. There has been no shortage of worldviews and philosophical interpretations leading to myriad ways of perceiving law, justice, rights, and responsibilities, both worldly and divine.

In general, before modern science gained universal prominence and became the reference for studying and understanding the laws of nature, people felt they lived in a world subject to all kinds of unintelligible or mysterious forces. People were thought to be free and responsible but also that their freedom was subject to or restricted by outside supernatural or divine interference.

Although physicalists reject the notion of a creator, I would note that the deterministic point of view does not necessarily rule out that possibility. Theoretically, a creator could design the universe and its governing laws and then, like a watchmaker, let it run on its own.

The question then becomes whether the creator designed humans to have freedom. If not, then full determinism prevails, just as with a materialism that denies a personal creator. But if the creator gave humans freedom while also making strict laws, then acting in accord or at variance with those laws would lead to different consequences. This is how religions explain good fortune or suffering — if you act according to law, you are rewarded; if not, you suffer.

Then there's the widespread religious belief that the creator, if all powerful, has the freedom to override the laws, participating in worldly affairs and sometimes changing the rules.

What beliefs you hold, what point of view you subscribe to, will depend on your consciousness — how developed, how comprehensive it is. You may find that your beliefs evolve as you broaden your personal consciousness, that you see more deeply into your own tradition and other traditions, reflecting a fuller understanding of the total reality of pure Consciousness.

The boy and the bishop

I'd like to end this chapter with a story — a story within a story, actually.

Like every youngster, I was always asking questions. I was especially intrigued by what the priests taught us at my parish school about the apparent contradiction of the Holy Trinity (Father, Son, and Holy Spirit) and the oneness of God.

In the early centuries of Christianity, many theological concepts were not fully agreed upon by all believers. In 325 CE at the Council of Nicaea in what today is Turkey, the heads of the Church met to clarify what the Trinity meant and establish other fundamentals of Christian doctrine.

About a century later, Augustine, bishop of Hippo Regius on the coast of Roman North Africa, summarized their conclusions about the Trinity in seven statements: the Father is God; the Son is God; the Holy Spirit is God; the Father is not the Son; the Son is not the Holy Spirit; the Holy Spirit is not the Father; there is only one God.

In short, the Many are different from one another and yet each is the One. And the One? Well, the One is not many.

This was a riddle I kept playing over and over in my young head, asking anyone who I thought might be wise enough to explain it. And one of my teachers told me the following story.

Augustine, who later was canonized a saint and became a Father and Doctor of the Church, spent more than thirty years refining his treatise, *De trinitate* (*On the Holy Trinity*), trying hard to understand and explain the riddle.

He liked to walk on the Mediterranean seashore silently contemplating this mystery. One day he saw a young boy running back and forth from the sea to the beach with a seashell full of water and pouring that water into a small hole in the sand.

The tall bishop approached the little boy and asked him what he was doing.

“I’m putting all the sea into this hole,” the boy said sweetly.

“That’s impossible, my dear child,” the bishop said. “Your hole cannot possibly contain so much water.”

The boy looked into Augustine’s eyes and replied, “What I’m doing is no more impossible than what you’re trying to do — to comprehend the immense mystery of the Holy Trinity with your limited human intelligence.”

The astonished bishop looked away in bewilderment, and when he looked back the boy had vanished.

Over the centuries after this encounter, some said the boy was an angel sent by God to teach Augustine a lesson about not being so proud of his learning. Others insisted the boy was the Christ Child, reminding the bishop of the limits of human understanding before the great mysteries of the faith. Whatever the case, the seashell has since become a symbol of St. Augustine and the study of Christian theology.

Even at a young age, I was not convinced by the conclusion that my teacher drew from the story, although I could see that it made some sense. We do seem to have limited abilities to understand everything, and there might always be things beyond us.

But since then I’ve learned that science has given us quantum mechanics and unified field theories, which postulate that there may be as many as eleven dimensions of the universe, though we live in only three plus time. And it has told us that time and space are interrelated and that, if we travel very fast, space dilates and time slows down. Such ideas were way beyond anything I could grasp as a child. Still, I just knew even then that there must be a better lesson to draw from the story of the learned saint and the young boy and the small hole and the vast sea.

After a lifetime of learning and thinking, I now believe that the angel digging a hole in the sand had meant something quite different. He was saying that if we want to understand everything, we have to dig a much bigger hole — a hole as big as the sea itself.

We can begin to understand everything, but to do that we have to expand our awareness, expand the container of knowledge, expand our imagination and intelligence. We already know that our brain has huge reserves of potential — that there are at least 100 trillion neuronal connections in the adult human brain. *That* is a very big hole waiting to be filled!

And so I return to the theme of this chapter. We ask ourselves: What is our human potential? Can we do something about it? The answer is just what the

little boy taught the great saint: expand your consciousness and realize the infinite. Only then can you begin to fully understand the mysteries of life — its origins, its meaning — and understand the mystery of the Many within the One.

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CHAPTER 22

WHAT IS A WELL-LIVED LIFE?

Human flourishing is intrinsically linked to our innate desire for growth, knowledge, and well-being. The drive for more — whether in material possessions, understanding, power, love, or wisdom — is universal, transcending cultural and temporal boundaries. Yet, as we chase the elusive "more," we often find that lasting contentment remains beyond our grasp. This and many existential questions beckon us in our exploration.

Our new paradigm posits Consciousness as the nonphysical, nonmaterial ultimate nature of all there is. In this ontology, Consciousness is a unified field that is conscious of itself, conceiving within itself endless ways of experiencing and knowing, akin to an author imagining fictitious characters. These characters, while diverse in perspective, are merely virtual facets of the self-reflection of the unmanifest field of Consciousness.

Unmanifest Consciousness, as an unbounded ocean of awareness, is thus singular but with a multitude of virtual perspectives, each offering a unique vantage point. They include all possibilities: everything imaginable and its opposite. Perspectives in the unmanifest are potential subjects or loci of consciousness.

To explore the full range of possibilities, Consciousness separates individual loci (subjects) of consciousness from one another in what is perceived in manifestation as space and time. And it hides its essential nature as unbounded oneness by granting the subjects of consciousness the illusion of separate identities and freedom. The subjects experience individuality as egos separate from one another, as they are ignorant of their essential nature as consciousness.

Manifestation, as we experience it in our apparently physical universe, is thus Consciousness manifesting as individual subjects with limited perspectives. Manifestation is the display of perspectives emerging from ignorance of the true nature of ultimate reality. These perspectives from

ignorance contribute to the totality of knowledge, which then encompasses both the boundless understanding of ultimate reality and insights from constrained vantage points.

Manifestation satisfies the need of Consciousness for total knowledge of itself, which includes all limited perspectives: from the humble interactions of elementary particles, representing some of the most limited loci of consciousness, to the profound insights of heightened consciousness. True knowledge emerges in realizing that everything and everyone are facets of the unbounded ocean of Consciousness, each facet perceiving the others from its own vantage point.

Therefore, Consciousness in manifestation is not the exceptional privilege of human beings. It is all-permeating, with a range from minute levels of interacting and responding, such as a particle sensing gravity or a flower turning to the Sun, all the way to humanlike enlightened consciousness and possibly beyond.

This paradigm posits a profound purpose in life — to uncover one's true nature and understand the nature of everything else. Evolution, in this context, entails acquiring greater knowledge of ultimate reality.

Ethical implications follow: all that fosters unity and understanding of the ultimate oneness in Consciousness is deemed "good," while anything that disrupts this unity is "non-evolutionary."

Flourishing takes on profound significance in this framework. It is the journey toward a deeper comprehension of one's authentic self and the interconnectedness of all.

The pursuit of "having more" derives from a materialist perspective and often misconstrues the true purpose of life. True flourishing is found in *being more*, which extends to raising awareness of the ultimate reality that "I am everything" and "Everything is the unbounded ocean of Consciousness."

Being more knowledgeable, more intelligent, more resourceful, more creative, and more balanced allows you to have as much or as little as needed. Be everything, be the unbounded ocean of Consciousness, and then all desires, all needs, all aspirations small or big will be fulfilled. This is the practical meaning of the biblical passage, "But seek first his kingdom and his righteousness, and all these things will be given to you as well."[1]

Empirically, Consciousness-based programs such as the Transcendental Meditation technique have been demonstrated through peer-reviewed

published research to enhance brain coherence and contribute to flourishing, including resilience, physical and mental health, and well-being for both the individual and society.

This new paradigm invites everyone on a transformative journey through consciousness, where the pursuit of human flourishing reveals its profound purpose and unveils the boundless potential within us all. It also offers a perspective that shows how various beliefs, traditions, and teachings by sages and prophets, as well as scientific, empirical observations, can find a common denominator, a common truth.

The ancient quest for a good life

In the Western tradition, the Greek philosopher Socrates held that living a good life depends on having a virtuous character. For this, he emphasized the importance of self-awareness and critical reflection. "The unexamined life is not worth living," he famously said.[2] By questioning our beliefs and actions, he said, we can uncover the principles that guide virtuous behavior. The path to virtue and a good life centers on rationally reflecting on the results of our actions.

Many students of Socrates stop there, with the intellectual exercise. But Socrates went much deeper. In Plato's *Symposium*, Socrates recounts a teaching that Diotima of Mantinea gave to him. Diotima urged Socrates to turn his eyes "toward the open sea of beauty," where he would "come upon one single form of knowledge."

> It is an everlasting loveliness which neither comes nor goes, which neither flowers nor fades, for such beauty is the same on every hand, the same then as now, here as there, this way as that way, the same to every worshipper as it is to every other.

This sea of beauty, Diotima told Socrates, is not material but is always "subsisting of itself and by itself in an eternal oneness," always "the same inviolable whole." If life is ever worth living, she said, it is when one "has attained this vision of the very soul of beauty." Only this experience can awaken true virtue within, she said. Without this, all one has is the semblance of virtue. But the person who has it, "he shall be called the friend of God."[3]

Diotima is clearly talking about Consciousness and the value of experiencing it directly.

Laozi, the ancient Chinese philosopher and author of the *Tao Te Ching*, emphasized a similar principle, based on the concept of *wu wei*. *Wu wei*, usually translated as "non-action," "non-doing," or "effortless action," points to the experience of inner stillness. In the *Tao Te Ching* Laozi writes:

> Be still
> Stillness reveals the secrets of eternity
> Eternity embraces the all-possible
> The all-possible leads to a vision of oneness
> A vision of oneness brings about universal love
> Universal love supports the great truth of Nature
>
> The great truth of Nature is Tao

Like Diotima, Laozi is talking about an underlying oneness that gives life to the universe and virtue to those who experience it directly. "A vision of oneness brings about universal love," he says, adding, "Universal love supports the great truth of nature." Within our own inner stillness, Laozi says, we can experience the Tao, a field of all possibilities, expanding our capacity to love and aligning ourselves with "the great truth of Nature."[4]

Back in the West, Augustine also reflected on how to live a good life. He emphasized the importance of aligning one's actions with God's will. Genuine love for God, Augustine believed, naturally leads to virtuous actions, as the virtuous life reflects divine love and purpose.

His terminology is different, but the principle is the same. *God's will* is identical to the laws of nature, the Tao, the universal stream of evolution. To love God deeply is to become aligned with God's will. As many saints have emphasized, the deepest love for God involves union with God, becoming one with the divine. Augustine describes his own experience of what he called *Immutable Light* deep within himself as "very different from all earthly light whatever."

"I was made by it," he says. In words strikingly similar to those of Diotima and Laozi, Augustine says, "He who knows the Truth knows that Light, and he who knows it knows eternity. Love knows it, O Eternal Truth and True Love and Beloved Eternity."[5]

You may have noticed that Socrates, Laozi, and Augustine do not talk about the things we usually associate with a good life: physical comfort, meaningful work, community, and so on. They focus on what they believe is the most important of all human experiences, transcending, suggesting that everything else follows naturally from that.

Jumping into the twentieth century, we come back to Abraham Maslow, whom I talked about in the Preface. Over the decades of his work, Maslow found that the happiest and most fulfilled people were those he called *transcenders*, those who are motivated by the deepest values of life — such as truth, goodness, beauty, meaning, simplicity, wholeness — and who seek out peak experiences, including the experience of transcending as we define it here.[6]

In the Preface I said that flourishing involves the conscious experience of thriving and living a fulfilled, meaningful, and virtuous life. I noted that true well-being goes beyond feeling good about yourself and your life; it involves the experience of deep peace, contentment, and fulfillment that emanates from your innermost center. And over the course of the book we've looked at how this results from the experience of pure Consciousness deep within.

This brings us to a related theme we've touched on throughout the book: living in accord with natural law.

Living in harmony with nature's intelligence

Is it possible to think and act in accord with the laws of nature, in harmony with the evolutionary flow of natural law, in concert with the highest precepts of life?

Fortunately, the knowledge of Consciousness we have explored includes a practical methodology to do just this, for one's own benefit and the benefit of society — an effortless and systematic way to cultivate compassionate and loving behavior in individuals and even in an entire society.

This ability grows hand in hand with the growth of freedom that I described earlier. As our individual consciousness grows, our freedom expands, we gain greater ability to fulfill our desires, and our desires come increasingly into harmony with the laws of nature. Naturally and spontaneously, our every thought, word, and action is more and more for good.

This is not an intellectual process. The human intellect, no matter how advanced, cannot possibly compute all the ramifications of our actions. When we set out to accomplish something, we can never calculate how our action will affect others, now and into the future, and adjust our action

accordingly. Such complex computing can only be done by nature's intelligence.

This is exactly what happens in higher states of consciousness. When consciousness is unbounded, fully awake within itself, then it perfectly reflects the totality of nature's intelligence, which is the nature of our own Self. This is how our thoughts, words, and actions become aligned with nature's evolutionary flow, everything spontaneously computed to be life-nourishing.

Action in harmony with natural law is natural and spontaneous. This is the only way it can be. Trying to assess the myriad repercussions of our actions would divide our mind, and success in any action requires maximum mental focus.

We want to live and act naturally, without contrivance, without anxiety about outcomes. This we do by bringing our awareness into natural concord with the progressive, evolutionary flow of natural law. And this we do through the experience of regular, repeated transcending.

Then we gain the best of both worlds: increasing the ability to fulfill our desires along with increasing our confidence that everything we do supports and nourishes everyone and everything.

Let's delve into this in more detail.

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CHAPTER 23

HOW CAN WE SPONTANEOUSLY DO THE RIGHT THING?

Say you meet a person who needs help, and you decide to help them. Why do you help them? Is it because you would be living the golden rule — helping others whom you would want to help you if you were in need? Or because it is virtuous and you want to grow in virtue, to be like the good people you most admire? Most likely, you'd say it was for both reasons, but you probably wouldn't think much about it — you'd just help out.

Moral philosophers say there are basically three kinds of ethics, three ways to ask why an action is morally good. The first is rule-based ethics, called *deontological*, from the Greek word *deon*, meaning "duty" — you do it because you must. The most famous example of this kind of ethics is probably Immanuel Kant's categorical imperative: act only in such a way that you could will your action to be a universal law; that is, a general rule for everyone. This is the ethics of moral obligations, duty for duty's sake: some things we just have to do and other things we simply must avoid doing.

The second kind of ethics is *consequentialism*. It says we should judge the morality of an action solely by its results. The principle is utilitarian: act to produce the greatest happiness for the greatest number.

The third is *virtue ethics*: we should cultivate personal virtue by performing good acts that promote happiness and flourishing.

In real life, each ethical system borrows from the others and there are many variations.

Virtue in the Consciousness paradigm

How does our Consciousness paradigm apply to each? It contains the elements needed to understand the foundation of all ethics. As a summary, the paradigm stipulates that the meaning and purpose of life is to progress in experience and understanding from the most basic and rudimentary levels to the highest possible levels in Unity Consciousness. On this path, the sense of self gradually grows until we reach the ultimate experience of *Aham Brahmasmi* ("I am totality") and *Sarvam khalvidam Brahma* ("All this is Brahman, totality").

The synthesis direction brings greater and greater happiness, culminating in full enlightenment and bliss consciousness. This is the natural, uncontrived path of virtue. Whatever hampers the expansion of personal consciousness brings degrees of discomfort and suffering. Growth in unity provides the reference for promoting good and happiness for the greatest number.

This is the universal law, which simultaneously fulfills the various aspects of ethics I just discussed as well as the unspoken rationale for the laws prescribed by various belief and legal systems. Killing and stealing, for example, reinforce disunity as they strengthen the perception of separation from others. This harms one's evolution toward unity and disturbs the other's perception of potential unity: thus, less happiness and less good.

As we synthesize broader and higher consciousness, moving up in the manifest pyramid toward Unity Consciousness, we grow in virtue. Ultimately, we appreciate that the fundamental self of the other is identical to our own — at root we are both the Self. How could I not do unto others as I'd have them do unto me when I experience and understand them as my Self? Intuitively, people who belong to the same group perceive members of their family, society, fellowship, or nation as part of their self.

This happens in different degrees. If your child is in trouble, you spontaneously feel concerned. If aliens were to threaten the human race, all humans would unite with equal concern. Ultimately, in the fully developed mind and consciousness, all is my Self. *Vasudhaiva Kutumbakam*, states the *Maha Upanishad* — "The world is my family."[1]

The second point is that our behavior spontaneously improves as we rise up the manifest pyramid. We don't have to think much about it, we simply act more rightly.

We call this *spontaneous right action*. Why is it right? Because it is increasingly in harmony with the totality of Consciousness, with the principles of order and balance — the laws of nature — embedded in the very nature of Consciousness. As I observed earlier, it's as if we have a cosmic computer guiding us, knowing what actions will bring what reactions, not just for ourselves but for everything and everyone, so that everything we do maximizes harmony and balance everywhere.

So, the one ethical rule is: grow in higher states of personal consciousness and establish yourself, over time, in Unity Consciousness. By doing that, you will daily become more virtuous, spontaneously performing actions leading to better consequences, for yourself and others. As your virtue grows, moral dilemmas will trouble you less. Others may even be inspired by your example and want to know your secret for a happy and flourishing life.

It may seem quaint to talk like this when mean-spirited tribalism seems to have infected much of our public discourse, and our postmodern emphasis on difference has shattered nearly every commonality. But we need a universal ethics, if only because the amorality of modern science's purely physicalist paradigm has landed us in existential predicaments, including climate change, nuclear weapons proliferation, and the unknown consequences of rampant artificial intelligence. Fortunately, cultivating higher states of consciousness meets the highest ethical standards from whatever viewpoint we might examine right and wrong.

And there's a much larger reason that a Consciousness ethics should be at the heart of every program for our individual and collective good. Because Consciousness is all there is, when we integrate more pure Consciousness into our personal lives, we enliven it throughout our society and environment.

Earlier I discussed powerful Consciousness technologies that automatically extend flourishing to everyone. We looked at some of the empirical research showing that these technologies significantly reduce negative trends and strengthen positive tendencies throughout society.

In fact, they are the only techniques shown to do this. With the knowledge that Consciousness is all there is and the technologies to apply this knowledge, we cannot lose hope. We can move strongly ahead into a brighter future for all.

The role of attention

Of course, we are confronted almost daily with moral choices, so here again is the simple guide: in gauging whether something is good or bad, helpful or not helpful for oneself and others, one ethical principle underlies all: whatever supports growth toward Unity Consciousness is good, and whatever delays it is bad.

Positive, uplifting, life-nourishing experiences are most evolutionary — most conducive to developing our consciousness — and they give greater happiness. This is why people naturally seek beautiful things to see, hear, think about, and share. Beautiful things are more orderly, as we defined orderliness earlier. Beauty reaches beyond the physical. Most significant is inner beauty — mental, emotional, and intellectual.

Whatever we focus our attention on grows stronger in our lives. Why? Because repeated exposure to something shapes our perception in the corresponding quality. We grow from one bit of Consciousness to another. Every bit of Consciousness (moment of awareness) modifies the subject of awareness. We called this a new mode of awareness. Every experience you have changes you — every experience literally modifies your brain's wiring. Whether a minor or a life-transforming change, you operate in a new mode.

These bits and modes add up to form patterns. Repeating one bit many times reinforces the resulting mode, strengthening the impact on your pattern of being and experiencing. Giving more or less attention to something creates greater or lesser impact. The evolutionary effect depends on where our attention goes. Guiding our attention toward inspiring things that enhance harmony and unity can provide both relief and satisfaction. Conversely, attention on disturbing and disorderly things can disorient and disrupt.

Every experience should lead to greater orderliness rather than confusion. This ensures that we remain on the path to an increasingly good life. The highest level of attention is on pure Consciousness. This enhances and stabilizes the experience of unity. This is why the practice of Transcendental Meditation is so fundamental for evolution, well-being, and flourishing.

The role of intention

We have just talked about the role of attention. Now let's consider the role of *in*tention.

Suppose a cat jumps in front of your car and gets hurt. You'd probably feel remorse but you would not be at fault. Nevertheless, for unfathomable reasons, you'd become entangled with this situation and receive some karma from it.

Now consider someone driving carelessly or hitting the cat intentionally. Physically, the two situations are the same, but in the mind they are different because intention shapes the quality of our experience and its results. All is accounted for. The actions we take and the mindset from which we act shape the quality and intensity of the experience. As we internalize or "digest" our experiences, adding them to our repertoire of life experiences, our perspective changes significantly.

But intention alone is not good enough. You cannot do something wrong and get away with it just because you had good intentions. With less developed consciousness, people might believe they have good intentions but not know enough to make good decisions. Ignorance is no excuse.

As an extreme example, consider those who kill in the name of God. They might be deeply devoted to their faith and believe their intentions are supreme, but they violate a fundamental law of nature, deluding themselves while reaping, I would predict, terrible consequences.

Such actions disrupt the fine patterns and networks of awareness, creating heavy stress in the nervous system and disturbing the orderliness of brain activity needed for higher states of consciousness. Such actions also hamper the possibility of greater unity because killing involves seeing the other as nonself. Killing leads to perverse mental confusion and disruption in the consciousness of the killer. In evolutionary terms, an intentional killer of innocent people is the one who suffers and regresses most.

Killing in self-defense, though still disruptive, is different. Here the intention is to save rather than destroy life. Ultimately, though, our actions are as significant as our intentions and sometimes more so.

But with higher consciousness we can avert dangers before they arise. We can avoid harming others even in self-defense, making violence unnecessary. For example, the aggressor might become convinced to pursue more beneficial solutions, less risky and less dangerous for both parties.

At a deeper level, higher awareness means thinking and acting from the most powerful and evolutionary levels of natural law, from where you can

prevent dangers from arising in the first place. With higher awareness and greater intelligence, you can neutralize an enemy's hostility, perhaps even turning them to friendship.

A widely cited anecdote about President Abraham Lincoln during America's Civil War illustrates this. When a woman chastised him for calling the rebellious Southerners fellow human beings who were in error — she felt they were enemies who should be destroyed — Lincoln replied, "Madam, do I not destroy my enemies when I make them my friends?"

This principle operates as much on the collective level as the individual. As we have seen, scientific studies repeatedly show that when a small number of people in a society practice Transcendental Meditation and its advanced programs, crime and conflict throughout society are reduced. Negativity decreases and positivity increases. City life and national life become more coherent and less subject to aggression and other forms of negativity. This could avoid costly and devastating wars, conflicts where even the socalled winners suffer terrible losses.

This brings us back to the relationship between the individual and society. We can lead good lives as individuals, but our lives become far better when the whole society is living a good life. The two go hand in hand.

Made in the image of God

How good can a life get?

The great religious, spiritual, and philosophical traditions suggest that there may be no limits. The Bible teaches that humans are created in the image of God and that the kingdom of heaven is within you. In Islam, there is a saying by Imam Ali: "Encapsulated within you is the entire universe."[2] The ancient Vedic literature presents a similar saying: "Thou art totality, wholeness."

Due to its highly orderly structure, human physiology has the ability to experience pure Consciousness, the grand field of pure Being. By transcending all limiting experiences, we directly experience the Absolute, the field of perfect orderliness underlying everything in the universe.

This experience is supremely fulfilling and evolutionary. It reveals to us our true nature as unbounded and eternal. It reshapes the entire physiology. It aligns the structures and functions of the physiology with perfect

orderliness as it removes everything distorted or foreign, which we know as *stress*. It melts away stress and fatigue, causing the brain to function with perfect synchrony, bringing orderliness to the whole system. Regular experience of pure Consciousness nourishes and improves all areas of life, inner and outer, as abundant scientific research has documented.

And as higher states of consciousness develop, our thoughts and actions become attuned with maximum evolutionary power because awareness is established in the unified source of all knowledge, pure Consciousness. This is maximum intelligence and most complete knowledge, total knowledge in one human awareness.

At this level of wakefulness, all knowledge is available and lively as organizing power, which means that functioning from this level a person has the spontaneous ability to know anything, do anything, or accomplish anything. On this level of wakefulness, what Maharishi called the *Constitution of the Universe* is lively and vibrant within the awareness of the person. This results in the spontaneous utilization of the total potential of natural law.

This is how the Absolute, with its perfect orderliness, naturally becomes the guiding light of one's life and leads to spontaneous right action, providing maximum benefits to the individual and society. When collective consciousness reaches a high level of orderliness, societal and national life also come into accord with natural law, becoming evolutionary and most fulfilling.

As an aside, let me mention that in one of my research projects under Maharishi's guidance, I compared the structure and function of human physiology to the structure and function of the core Vedic texts, which Maharishi regarded not as humanly made but as cognized, that is, as reflecting the internal dynamic structure of Consciousness itself. To my amazement, I discovered a one-to-one correspondence between the two. The wholeness of Consciousness that is available to human awareness is also reflected in the structure and function of the human physiology, meaning that the human physiology is a perfect replica of natural law. (See Appendix A for a fuller discussion of this point.)

We can become truly free and powerful, the captains of our lives. We can anchor our ship in the unbounded stability and strength of pure Consciousness, pure Being. We can become masters of the destiny of our nation, masters of the destiny of our world, bringing the whole global

family into harmony with nature's intelligence, serving the well-being of everyone and everything.

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CHAPTER 24

WHAT ABOUT THE PROBLEM OF EVIL?

I grew up believing in a supreme being and a supreme order. Naturally, it was challenging to understand where evil came from. Why didn't God create a perfect world? Why does God allow suffering? If we have freedom of choice, why would anyone choose evil? Is it part of our nature?

Philosophers throughout history, in both Western and Eastern traditions, have grappled with the problem of evil in a universe believed to be governed by supreme intelligence, power, and goodness. The endeavor to find an answer is called *theodicy*.

Western thinkers such as Plato and Augustine attributed evil to human imperfections and free will, while Eastern philosophies such as Confucianism and Taoism saw it as part of a dynamic interplay within the cosmos. Some have asserted that our common human ideas of right and wrong cannot be applied to God's justice. Others have argued that what appears to be evil results from a constricted point of view and is mistaken. Still others have denied any contradiction between human and divine justice.

This debate continues today. There is a growing recognition of common themes across traditions, including the importance of empathy, virtuous living, and self-awareness.

The Consciousness paradigm can help us understand the problem of evil and the concepts of good and bad, virtue and sin. Let me recap some earlier points to provide a foundation for this discussion.

In the unmanifest, multiplicity is inherent within unity. Consciousness knows that all and everything is itself. It is aware that it can be conscious in an infinite number of ways. These are aspects of its wholeness and a play of its imagination. They include broad and limited perspectives.

We described two paths within the unmanifest: the analysis path (awareness flowing from the one ultimate perspective to more limited but still broad perspectives and on to the most limited perspectives) and the synthesis path (awareness flowing back toward the one unbounded perspective).

All imaginable paths and all imaginable combinations of perspectives coexist simultaneously within the unmanifest. All balance one another. The infinite, inherent, conceptual dynamism cancels itself and the unmanifest remains forever a silent, flat Absolute.

However, to know itself fully, the Absolute has to know itself from the perspectives of subjects who are oblivious to their unbounded, ultimate nature. These subjects have to be free to experience individuality and to act and react based on their own limited perspectives. This is manifestation.

As we have discussed, all possible manifestations cannot exist simultaneously: they would cancel each other out and there would be no manifestation. There must be conceptual separation in time and space. The concept of separation requires the concept of gaps that separate. There are two kinds of gaps: gaps in space and gaps in time. Both represent nothingness.

Furthermore, as we study our manifest universe, we find that it started from nothingness (emptiness, space inflation) and developed on a synthesis path from limited subjects (elementary particles) to more developed consciousness (plants, animals, humans). In this way, manifestation starts where analysis is maximum (nothingness and elementary particles) and proceeds on a synthesis path of evolution.

To maintain balance, synthesis and analysis must have equivalent force. As the necessary space for separation emerges, synthesis becomes the predominant force, assembling the parts toward greater wholes: particles into atoms into molecules, and so on. As synthesis builds up, analysis also keeps operating. The interplay of analysis and synthesis and their balance are what we experience as both growth toward higher states of consciousness (synthesis) and entropy or the tendency for separation (analysis).

Stepping back and looking at the dynamics of manifestation as a whole, we can identify three “seeds” of evil: freedom, the separation of analysis and synthesis, and ignorance of the ultimate Self.

I use the word *seeds* because the process of manifestation in itself is certainly not evil. The Absolute knows that ignorance, analysis, and separation have nothing to do with destruction. It knows that every part is its own self. In consciousness there is no *other*.

Evil, therefore, does not and cannot exist in the Absolute. The analysis process of diversification within Consciousness reflects the joy of multiplying the Self into an infinitude of selves. And the synthesis process involves the joy of bringing the parts back toward greater and greater wholeness.

The one grand field of Consciousness is never deluded. The apparent chaos of the universe — with particles, matter and antimatter, and even whole galaxies colliding with and annihilating each other — is not evil. It is just the result of the inherent freedom, which on the most meager levels of awareness does not include choice but is only randomness. It's like randomly shuffling a deck of cards an endless number of times, each time leading to a different sequence, each one perfect. In manifestation, this can happen in endless numbers of universes, each with its own constants, laws, manifestations, and evolution.

None of this is evil. A volcano destroying a town is profoundly unfortunate, but volcanoes are not evil in themselves — they have no awareness of towns and people. If, however, somebody knows a volcano is about to erupt and fails to inform the inhabitants, that is evil.

Evil comes to exist only in the relative fields of manifestation, and even there it emerges only with higher levels of awareness. Evil requires a sophisticated yet distorted awareness. Such complex awareness arises from an advanced synthesis process. The synthesis process in general is creative and evolutionary and leads to higher states of awareness. Nonetheless, the emergence of evil requires it. The evil lies not in the synthesis process itself but in an assemblage of bits, modes, and patterns of Consciousness that are not in tune with the generally evolutionary force of the synthesis path.

This may be due to random initial patterns followed by bits and modes that lead to wrong choices made at a higher level of evolution. For example, random genetic mutations could lead to a disturbed person repeatedly making wrong choices, reinforcing destructive tendencies and causing that person to commit a crime. Criminals have higher awareness than cats, but that is not what makes them evil — it's their destructive tendencies.

The destructive analysis process itself is not necessarily evil, nor is the constructive synthesis process purely good. At every level of the manifest pyramid, destructive and constructive forces and tendencies are at work. The term *destruction* is rather strong, but I use it here liberally to include the activities of adjusting, correcting, and reorganizing. Any process of change involves destroying or deconstructing what came before to enable the new to emerge.

Of course, the term also includes actual destruction. Humans defending themselves against aggressors, antibiotics killing infectious bacteria, powerful chemicals destroying a tumor — all these involve forms of destruction that happen to participate in the process of evolution.

In this way, progress always occurs in steps of emergence and submergence. We can see submergence as destruction and emergence as creation, and we cannot create something new if the old does not allow the new to emerge. In this context, destruction is not evil but evolutionary. As Blake wrote, "The cut worm forgives the plow."[1]

In traditions that believe in reincarnation, even death is seen as a step of renewal. When the physical body loses its capacity for renewal, it is cast aside like an old garment, to be replaced by a new garment that supports one's continuing evolution in the next life.

Accordingly, in the Consciousness paradigm, reincarnation is quite plausible. It allows one's journey to continue until one reaches the full evolution of personal consciousness and liberation from the repetitive process of renewal. In the course of that journey, the karmic influences continue with the individual who created them until that person clears them up.

If we admit the possibility of reincarnation, we may have an answer to the question of why bad things happen to good people: it could be their karma from a previous life. In our paradigm, it could also be from some degree of randomness, during which they did not have enough consciousness to avoid the danger. Hence the importance of being alert and operating on the basis of higher states of consciousness to avert the danger before it arises. *Heyam dukham anagatam*, says the *Yoga Sutra* of Maharishi Patanjali. "Avoid the danger before it arises."[2]

It is important to know that when consciousness is at a lower level, dangers can happen randomly. Ignoring this factor can lead to fatalism, to a dull indifference in which we assume that what has happened is

predetermined, inevitable. We can have accidents we did not deserve. This is not the rule but certainly possible. Yet it does call for alertness and carefulness. Lower consciousness exposes us to potential danger. Therefore, we need to be in a higher state of consciousness. This is the only security, the only way to avoid potential danger, whether random or due to previous karma.

Randomness is much more prevalent on lower levels of the manifest pyramid. Choice and responsibility increase on the higher levels. Feelings also become more significant at higher levels. Atoms are exposed to much more randomness than humans because of their lower consciousness, and they have an infinitely lower degree of feeling. For an atom, being split and transformed is not a consideration, but for a human being it's rather more significant!

How can we reconcile randomness with karma and law? Ultimately, every action has an equal and opposite reaction. At lower levels of the manifest pyramid, this is physics. At higher levels, it is karma.

Recall that in the relative field of manifestation, particularly at higher levels of the pyramid, action and reaction need not take the same form or happen in the same place and time. This opens the door for apparent spatial and temporary imbalance and the illusion of chaos. Ultimately, however, all will be balanced. Therefore, if an unfortunate and undeserved random event were to harm you, that harm will be repaired in one way or another, in this life or another.

If we look at these phenomena only through a narrow lens, only within the scope of a single lifetime, we might see a great deal of randomness in life, both positive and negative. We might say that bad things happen for the same reason that anything happens — the universe is in constant flux, a continuous stream of change. In this view, there is no good or bad, no meaning or purpose: things just happen. This is the physicalist view.

A broader view, encompassing lifetimes, enables us to begin to see how freedom, choice, and karma may factor into the workings of natural law. With the most expanded view, we can understand that the flow of evolution is upward in the manifest pyramid, toward growth, expansion, and the ultimate fulfillment of Unity Consciousness.

In any case, no one should inflict harm or destruction on others, whatever the goal. This can only create a karmic burden because our assessment of what is best for others can be wrong. Nonviolent, nondestructive

approaches, even in the face of evil, are safer, more effective, and most evolutionary. As Maharishi used to say, “Do not try to destroy the enemy. Destroy the enmity within the enemy.”

The seed of evil is imbalance

The seed of evil can be an imbalance during the random process of assembling the parts at the beginning of the synthesis journey. The force that propels this journey normally leads to higher consciousness. But because we humans can be free and ignorant at the same time, we can make bad, sometimes horrific choices. Evil, therefore, reflects an imbalance resulting from both randomness and karmic influences and leading to a misplaced destructive tendency in an otherwise evolved individual.

I use the term *evolved* in this context because evil requires the ability to intend harm. Destruction becomes evil when it is intended. We cannot assign evil to lower levels of purely random interactions where choice does not accompany freedom, as in the example of a volcano. Evil can appear only when choice becomes possible. Evil fights for its self-preservation just like everything else with a sense of self, though its sense of self is very narrow, blind to the bigger evolutionary picture — it cannot be very high in the pyramid.

Evil eventually destroys itself

To recap, evil arises in the spontaneous analysis and synthesis processes resulting from the inherent nature of the grand field of Consciousness, which is to be conscious and to know both its wholeness and its parts. Consciousness gives freedom to its parts. Under the synthesis force they combine and recombine in all possible ways. The fittest survive and evolve, while the less fit are dismantled by entropic analysis forces.

Higher awareness brings a growing sense of self, self-preservation, and self-expansion. In the random field of all possibilities, evil can spontaneously emerge. But since it is destructive and lacks high awareness, it ends up destroying itself. This is due to the action and reaction principle: *As you sow, so shall you reap*.

As a society, we should always guard against destructive decisions and directions because they generate further destruction (violence begets

violence), slow our evolution, and can lead to annihilation. Those who benefit from evil might mistake it for good. Warring groups might justify their fighting by seeing evil in the other.

But good is what moves you and everyone else higher in the pyramid, while bad is what moves you lower. This is how we can distinguish good and bad. To say something is universally good means it supports growth and evolution not just for one person but for all. There can be no good for someone if it is bad for someone else. If you cause harm to someone, you will suffer negative repercussions yourself, slowing your evolution.

The absolute field of pure Consciousness — pure Being by itself — will not interfere with one's freedom of choice. This would violate the primordial forces that allow creation to manifest. Thus, we humans have a responsibility. We can make decisions that promote our growth and evolution or choices that lead to our destruction.

If planet Earth does not survive, endless numbers of other Earths and universes will carry forward other civilizations that are making right decisions, perhaps even becoming immortal. If we do not make the right choices, we could become just another failure, reaching a certain evolutionary level and then vanishing.

But this doesn't have to be. With higher levels of Consciousness, we can make and unmake our own universe. We already have the physiological complexity and awareness to access all the power, energy, and intelligence inherent in the laws of nature. By transcending, we can align ourselves and our societies with the supreme and perfect order of pure Consciousness and gain the ability to do all good with least effort. We do not want to end up as a cosmic experiment that reached the highest levels of development and then failed because we misused what we had acquired.

Why do bad things happen to good people?

Let's return to the question: Why do bad things happen to good people? Or, closer to home: Why me? The simplest, most direct, and probably truest response is to say that the layers of karma are unfathomable.

We have already discussed the immense complexities of karma and how our own actions may lead to reactions that force us into certain conditions, constraining our freedom. Though we may be free to choose specific actions, we are not free to determine all the results of our actions. Even the

slightest action produces consequences that ripple outward to the ends of the universe. We simply cannot trace the entire consequences of any action and take actions that will be life-enhancing for all. Such data processing is outside the range of human capability. But it is well within the range of the intelligence of absolute, pure Consciousness.

As the French theologian Pierre Teilhard de Chardin wrote, “In the final analysis, the question of why bad things happen to good people transmutes itself into some very different questions, no longer asking why something happened, but asking how we will respond, what we intend to do now that it happened.”[3]

So, when something bad happens, what we really must say is, I cannot know why this happened. I can only ask: What should I do now? What can I create from this?

The answer, again, is simple and direct: *transcend*. Align your individual consciousness with pure Consciousness. Then your actions will spontaneously partake of the supreme intelligence and order of pure Consciousness and will spontaneously nourish everyone and everything around you.

Well, you might protest, if Consciousness is all there is and therefore I am Consciousness, why aren’t all my actions in line with pure Consciousness right from the start?

The answer is that you have the freedom to choose. We have already discussed how higher consciousness, such as in humans, means more freedom and how more freedom means the ability to choose, choosing from a widening range of options, including those with negative consequences.

When you play a piano, each key you strike gives a specific sound — that’s determined. But which keys you strike — that is your freedom, your choice. You could strike keys that make pleasing or displeasing sounds. Whatever keys you choose, whatever actions you take, it’s always Consciousness exploring its infinite nature.

What can we do when the sounds are unpleasant? Use technologies that attune our personal consciousness with pure Consciousness.

This has a twofold effect. First, it ensures that we don’t make mistakes, or at least not as many — we don’t hit so many unpleasant combinations of keys. We define a mistake as something that violates the inherent balance within Consciousness and produces temporary dissonance in the manifest realm. Eventually, the mistake will be corrected and balance restored,

though maybe not right away. And that mistake, even its inevitable correction, can rebound to us or others as suffering. If we make fewer mistakes, we simply don't bring on so much future suffering for ourselves and others.

Consciousness is always equal to itself. When we broaden our own consciousness through transcending, we participate more fully in that balanced state. We more fully experience and appreciate the rightness of the manifest. We experience whatever turbulence we find there against the background of that immense peace.

This is the second effect of attuning our individual consciousness with pure Consciousness. We're not resigning ourselves to the bad that happens — far from it. Rather, we experience the bad against a much larger vista of good and, seeing that, we're inspired to do more good in our lives. As we expand our consciousness, our intentions improve. They become increasingly aligned with the flow of evolution in the synthesis direction, up the manifest pyramid. This is the fruit of an expanding personal consciousness.

The manifest realm is relative, never all one thing or another, always a mix. But because it mirrors the unmanifest realm and is part of the one Consciousness, it is inherently and eventually balanced. We recognize that reality more fully as our individual consciousness grows.

This is what I meant when I said *rightness*. We want to live more and more in that rightness that we recognize in our own unbounded Self. So, we act to have more of that in our lives and the lives of others. That is what we can do — this is what regular transcending brings — and that is the best answer we can give when bad things happen to good people.

Why would Consciousness not rescue us?

You might ask: Why does the absolute grand field of Consciousness not come to our rescue? Why does it allow innocent children to suffer? Why does it allow people to kill one another, even in God's name?

The answer is that we have freedom. Without freedom, nothing would have significance. There would be no manifestation. And we, with our own small selves, are aspects of Consciousness and naturally cherish this freedom.

The impersonal Absolute floats eternally in bliss and total perfection; nothing ever changes for it. All is just one grand field of pure Being. The personal Absolute, with its discriminating quality, sees all and feels all. Joys and pains, hopes and fears, expansions and contractions are all within its own Being. All that suffers and all that rejoices, all that is born and all that dies, all occurs within the unbounded sea of Consciousness. Yet, Consciousness itself never loses its equanimity because in its absolute Being all adds up to the same unbounded bliss.

We have recourse to that higher intelligence and power within our own consciousness. We can align ourselves with the source of all there is through repeated transcending. In this way, we can receive help and support from the Absolute, but that Absolute is not outside us or different from us — it *is* us. We adopt the Absolute's perspective, which is *our own* highest perspective — we align with that. We could call this surrendering our small ego to the Absolute, but this just means surrendering to and aligning with our own higher self, the Self of the universe.

In this cosmic surrendering there is no loss. Quite the opposite — there is only gain, expansion to the unbounded, elevation to the supreme.

All contradictions fall away. In this state we act as totally liberated individuals consciously surrendering our will to cosmic will, the will of the Absolute, which is our own highest will, and allowing ourselves to be instruments of divine intervention, which is our own highest power. This is a matter of choice, but we must make it ourselves if we desire this level of support.

Asking an absolute agent that we imagine to be outside us to step in to help — that does not usually do the trick. We must align with the Absolute, the Self, placing ourselves in harmony with the flow of natural law, realizing that we are aligning with our own best self, and making that choice ourselves.

This is not something we can do on the superficial level of speech, as in mental or emotional prayer, or on the superficial level of mind, as with some new intellectual understanding. It takes place within our being, our inner core, our deepest awareness. For this, we have to transcend. Only from the transcendental level can we fully harness the infinite power and intelligence of the Absolute.

Thinking and acting from this level, we find everything moving in a life-supporting direction for us and for those we love — not in violation of our

freedom but in confirmation of our supreme freedom. From this deep level of our being, thoughts become more powerful than actions. Thought at this level can move mountains.

Determinism, taken to its logical extreme, implies that taking responsibility for one's life is either useless or lame, a feeble attempt to interfere with an inexorable, preordained design. Such views can promote passivity and, tragically, lead to the view that life is meaningless and absurd.

In contrast, the Consciousness paradigm emphasizes that we have full responsibility along with the distinctly human ability to create meaning. As our individual consciousness rises, we can transform our universe, reverse the destructions we have wrought, and fulfill our highest destinies. Consciousness is all there is, and raising consciousness is all it takes to transfigure the world for the better.

As we raise collective consciousness in all nations, we will spontaneously find the most evolutionary paths forward for every culture, way of life, and belief system to thrive.

"You cannot go into the same river twice," the Greek philosopher Heraclitus reputedly said, by which he meant that by the time you step into the river again, the river has changed and so have you.[4]

Emergence and submergence, evolution and dissolution, adaptation and transformation — everything in the manifest, relative universe is always changing. Whether at the quantum scale of elementary particles or the astronomical scale of galaxies, nothing in the relative ever remains the same. Everything in the universe, like waves on the ocean, comes and goes.

Life is the unbounded ocean of Consciousness lived in an endless number of ways. Living is a sequence of waves, moments of experience, one bit of Consciousness after another. Whether long or short, narrow or broad, whether bringing happiness or pain, whether it's a particle detecting another particle, a predator gazing at prey, an explorer finding a treasure, or lovers in rapture — all are waves in the ocean of Being.

The waves come and go, rise and fall. And, while living happens in sequential moments — one bit of Consciousness followed by another, one wave after another — life itself remains immortal, transcending birth and death.

Just as fluctuations in energy fields appear to observers as particles, fluctuations in the field of Consciousness appear as separate moments of

experience. Just as a movie made of sequential images appears to flow without gaps, these moments follow each other at such speed that they seem a continuous flow. The inability to experience the gaps between pictures in a movie or between moments of experience in life gives the impression of a smooth, uninterrupted movement.

Nonetheless, there are gaps between moments, giving us the sense of sequence in time, and gaps between objects that we call *space*. There are gaps between thoughts, between actions and consequences, meeting and parting, day and night, between one life and another.

Into every gap something submerges, and from every gap something emerges. If emergence is birth, submergence is death. It is as if we die and are reborn with every new moment across all gaps, small and large. Nothing, however, is created and nothing dies — all is only transformed.

On the surface, one wave recedes into the ocean as another wave rises. The way something emerges is influenced by the way it submerged into every previous gap. Every action and every choice shape what happens the next moment, the next day, the next lifetime. This is why we must take care in how we live.

The force of evolution is there at every stage, across every gap, pulling us back toward the top of the manifest pyramid. After all, we are, each of us, one unbounded ocean of Consciousness appearing as many while remaining unity.

Earlier, I spoke of *pragya aparadh*, “the mistake of the intellect”: experiencing an object as real in itself and not as a manifestation of pure Consciousness. This, we could say, is the beginning of evil. And what is the end of evil? To correct the mistake by realizing the Self in oneself and in all things.

As Teilhard wrote:

> We are collaborators in creation. We are one, after all, you and I; together we suffer, together exist, and forever will recreate each other. Remain true to yourself, but move ever upward toward greater consciousness and greater love! At the summit you will find yourselves united with all those who, from every direction, have made the same ascent.[5]

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CHAPTER 25

HOW CAN WE ADDRESS THE CHALLENGES WE FACE?

Although human civilization has progressed marvelously on the material level, we still face all kinds of challenges.

These include climate change, nuclear weapons proliferation, environmental collapse, artificial intelligence, human rights, racial and religious discrimination, public and personal health, the economy, energy, housing, education, cultural integrity, politics, and human welfare and security.

While great numbers of people are working to address these challenges, many are worsening. Some threaten the very continuation of the human species.

It's widely understood that to solve a problem we have to go to its source. The fact that we face so many problems all at the same time suggests that they have a common source, one that we're failing to address.

I propose that the seemingly countless challenges we face, as different as they appear on the surface, do share a common source, and that by identifying that and working from the deepest level, we can readily resolve these challenges.

That source has to do with human awareness, human consciousness, that elusive phenomenon that enables our ability to think and reflect, to desire and act, to enjoy and love — our ongoing ability to *experience*.

Throughout this book, I have emphasized that ordinary waking consciousness is undeveloped consciousness, that we have failed to develop the total potential of our consciousness, which would give us access to the prodigious resources of creativity and intelligence latent within us.

But even this failure is not quite the common source of our challenges. That common source lies in the simple reality that we do not know who we are. That is, the vast majority of human beings do not experience their

innermost nature as infinite and unbounded. That most essential, most intimately personal of all human experiences has gone missing. *Know thyself*, the fabled directive inscribed on the gate to the Delphic oracle in ancient Greece, remains unfulfilled.

To say that the climate crisis, the proliferation of nuclear weapons, and the rising tide of chronic disease all stem from not knowing who we are — truly and deeply, as a matter of profound inner experience — may seem laughable to some. But this only speaks to how obscured this universal reality has become today. Having lost the experience of the Self — being cut off from our roots in pure Consciousness — we've lost conscious connection with the supreme intelligence and organizing power of natural law, without even knowing what we've lost.

Nothing could be simpler than knowing one's Self. Yet nothing could be more transformative. This is because nothing lies deeper. Consciousness is fundamental — Consciousness is all there is.

I've sketched out the transformations that take place in individual life through the regular experience of transcending via Transcendental Meditation practice — the extraordinary higher states of consciousness that unfold as a natural result of this practice. And I have also outlined how this process produces extraordinary changes across society, even when just a small percentage of a population engages in the practice: a mere one percent or even the square root of one percent when people practice Transcendental Meditation and its advanced techniques in groups, a phenomenon called the *Maharishi Effect*.

This is the power of going to the root of the issue. A tiny number of people, through the simple act of knowing the Self, can neutralize long-standing, deeply entrenched societal stress. The whole society begins to benefit from the experience of transcending, of knowing the Self. The whole society begins to shift — moving away from negativity and disharmony and toward positivity and harmony, even if the majority of people are not themselves meditating, even if they have no idea where the change is coming from.

As for the array of challenges we grapple with, neutralizing stress in collective consciousness will surely play a fundamental role in addressing them. This has been happening already, though not nearly as rapidly as it could. Yet I feel hopeful that world consciousness will continue rising and that these issues will be resolved in time.

But if coherence in the world's collective consciousness does not profoundly improve, we will face mounting dangers, not only from the challenges we're aware of but from unexpected places.

It's beyond the scope of this book to delineate all the challenges and how they can be addressed by developing consciousness, so I will mention just a few pressing examples.

The climate crisis

The first thing that strikes us when we examine these problems is how extraordinarily complex they are.

Take climate change, for example. Most people are familiar with how burning fossil fuels increases the concentration of carbon dioxide and other gases in the atmosphere, trapping the Sun's heat and creating the greenhouse effect. But deforestation, livestock farming and other agricultural practices, urbanization, industrial processes, and waste management also drive climate change. And all of these drivers are deeply embedded in a larger system that does not appear to be as flexible and resilient as it needs to be to reverse the current trends quickly enough.

The destructive effects of the climate crisis are playing out before our eyes, in all parts of the world, reflected in daily news headlines. Many people are working to mitigate and reverse these effects, whether in their respective industries or through public education and changes in public policy. Yet around the world, shortterm financial and political interests obstruct change and sow seeds of doubt and division.

How would a global Maharishi Effect address this challenge?

By neutralizing societal stress, a global Maharishi Effect would reduce the rancor and divisions that separate us along numerous social fault lines, and it would promote social harmony and unity, fostering greater cooperation at every scale of society just when we need it most.

There is good reason for hope. For example, nearly 90 percent of all new electricity generation, remarkably, now comes from renewable sources. But we must accelerate these and other efforts.

I see no reason for despair. Despair only impedes action. And now there is an action we can take that can neutralize the stress and incoherence in collective consciousness that are blocking positive and necessary change. I hope this present opportunity inspires everyone to take this action.

The Maharishi Effect, I must add, is nonpartisan. It doesn't align with any particular agenda, any more than rain falling onto a garden aligns with flowers versus vegetables. It is purely nourishing, supporting everyone equally. This does not mean everyone will adopt the same point of view. In fact, the greater the expansion of consciousness and unity at the basis, the greater and more robust the diversity at the surface. But because that diversity is anchored in unity, everything works together for the good of the whole, as in a healthy ecosystem. This is the world we can build together.

The threat of nuclear weapons

The menace of nuclear war has overshadowed world affairs for nearly eighty years. Though the estimated 12,500 nuclear warheads worldwide in early 2023 are significantly fewer than the more than 70,000 at the height of the Cold War, even a "low-level" nuclear exchange — the detonation of just a few weapons between two countries — could create a nuclear winter for the planet, with unspeakable consequences.

The United States and Russia possess nearly 90 percent of the existing nuclear weapons, but China, France, the UK, India, Pakistan, and North Korea also have substantial numbers, and Israel's probable possession incentivizes its neighbors to develop their own.[1]

In all of the several nuclear deterrence strategies, countries have little to gain and much to lose by striking first. Yet the mere presence of so many nuclear weapons in the world is profoundly worrying.

Globaltensions — between the United States and Russia, the United States and China, India and Pakistan, China and India, and the countries of the Middle East — have experts talking about a "Cold War 2.0" and a renewed nuclear arms race.

And consider the many nuclear close calls over the past seventyfive years, due to misinterpreted radar signals, miscommunications, and misreadings of military actions by the other side.[2] All were averted by good luck, but good luck does not last forever.

Then there is the so-called asymmetrical threat, in which single individuals can potentially use chemical and biological weapons, portable nuclear weapons, and other strategies to threaten entire cities, as well as cyberattacks to disrupt organizations and governments. Experience has

demonstrated that even the most militarily powerful countries are vulnerable to such terrorist attacks.

The conclusion is clear. We must reduce the stress, tension, suspicion, and fear that pervade world consciousness, and we must promote amity and cooperation among nations, groups, and individuals.

The Maharishi Effect accomplishes both. For the first time in history, we possess an evidence-based technology of peace. We now can realistically envision a time when nuclear weapons and military arsenals will become obsolete — when swords are beaten into plowshares.

Discrimination

It is impossible to assess the extent to which discrimination in all its guises harms individuals, communities, and societies at large, impeding progress, social harmony, and human potential.

Discrimination wears many faces. There is discrimination by race, gender, sexual orientation, age, disability, national origin, culture, language, socioeconomic class, body weight and size, marital status, pregnancy, disability, veteran status, and more.

Discrimination in any form is profoundly detrimental. It inflicts emotional and psychological harm on those targeted, stifling their potential and limiting their opportunities, leading to income disparities. It fosters division and resentment within communities, undermining trust and social cohesion. This in turn deprives society of diverse perspectives, talents, and skills, thereby retarding innovation and social progress. It undermines the principles of fairness, equality, and human rights, weakening the social fabric. And just as violence begets violence, discrimination begets more discrimination. The whole society suffers.

Discrimination has deep roots, involving a complex interplay of historical, social, psychological, and economic factors: historical events, socialization and stereotyping, economic inequality, fear of *the other*, political manipulation, religious differences, lack of exposure to other cultures and perspectives, psychological biases, and simple lack of empathy.

People are striving to address this immensely complex challenge through education, legislation, economic reforms, and public awareness, and while there has been great progress in some respects, the issue has become politically charged and has faced strenuous opposition and setbacks.

Growth of consciousness at the individual and societywide levels will boost progress in the same way as it promotes peace — by dissolving individual and social stress and promoting greater open-mindedness and acceptance of others.

Among all the challenges we face, discrimination conspicuously reflects underdeveloped consciousness. In ordinary waking consciousness, we see literally everyone and everything as different and separate from ourselves. It's the inevitable result of our state of consciousness. Yes, people can cultivate greater empathy and openness, assuming they're willing to do so. But developing and expanding consciousness offers the deepest approach.

Growing toward Unity Consciousness involves experiencing the people and things around us increasingly in terms of our common source — pure Consciousness. We experience everything as increasingly familiar, culminating in the experience of everything in terms of the Self. We enjoy the ultimate value of diversity on the basis of ultimate unity. Love expands to become universal love, for everyone and everything. No shadow of discrimination can creep in, for there is no longer an *other* to discriminate against.

Resolving our environmental crisis

Unity Consciousness is also the essential solution to the environmental crisis. As long as we see the environment as separate from us, it remains something to be exploited.

Understanding our interconnectedness and dependence on nature is vitally important. But directly experiencing our literal oneness with nature carries us to the actual reality of things. We realize that damaging the environment means damaging ourselves, and this we would never do. As we develop higher states of consciousness, we live in the world with the same care and enthusiasm as we live in ourselves.

Genetic engineering

Genetic engineering is another concern, and its development is accelerating. Genetic engineering involves manipulating nature's genetic code, which has evolved over millions of years. This technology has promised to improve

crops, cure disease, and prolong life, but its long-term effects remain little understood.

We do know that contrary to initial promises, genetically modified crops have not improved nutrition or crop yields, but they have, over time, massively increased farmers' use of pesticides, which is demonstrably harmful to both people and the environment.

It is unlikely that we can place moratoriums on genetic engineering, for there is already a global race to develop this technology. Depending on our collective intelligence and awareness, it could help humankind or become our master, even our executioner.

Only wise planning grounded in higher intelligence can make this powerful technology safe. Raising individual and world consciousness is critical. If competition truncates long-term vision, this technology can be devastating. We must create coherence, orderliness, in the collective consciousness, in the minds and hearts of people as a whole, before we can safely embark on large-scale genetic engineering. This is an urgent responsibility.

Pandemics

Genetic engineering is not limited to laboratories — it occurs naturally. Mutations and mixing of different species among viruses, bacteria, plants, and animals continuously yield new life forms. Some are beneficial and evolutionary, others harmful and even deadly.

The world has experienced many epidemics and pandemics, including smallpox, tuberculosis, and HIV/AIDS. Some, like the fourteenth-century plague, the 1918 flu pandemic, and COVID-19, left swaths of suffering and nearly paralyzed the world. To manage such threatening situations, we need higher consciousness — broader comprehension of the disease process and its spread — for wiser and more inclusive planning, for discovering preventive measures and cures, and for improved health and resilience in the population at large.

Dull, stressed, fearful, narrow-minded individual and collective consciousness uses only limited intelligence and creativity and struggles to find solutions by trial and error. We need calm and expanded awareness, individually and collectively, to manage pandemics and all the other challenges we face. All the creativity we need is ours in abundance when we

draw from the inexhaustible well of creativity and intelligence wide open to us in the ocean of pure Consciousness. This is also the wellspring of health and wellness for the population as a whole.

Dependencies and addictions

In the global society, many of us are becoming increasingly dependent on potentially dangerous and addictive medications and drugs. These medicines can temporarily ease many mental and physical ailments, but we might not easily detect their long-term side effects.

Substance addictions take a horrific toll on quality of life worldwide. More than a billion people smoke, close to 250 million people are dependent on alcohol, and 35 million people suffer from a druguse disorder. These addictions are risk factors for several hundred diseases and are among the highest causes of avoidable death. They place a staggering burden on health care systems globally. More than half of serious crimes are linked to alcohol and drugs, a connection so close that they are considered part of the same epidemic. The losses in productivity are enormous, as is the immeasurable cost in human suffering, for those addicted and their families.

Then there is the internet, so useful that it's unavoidable but so addictive that it has fostered an ever-increasing overdependence on our electronic devices, gluing people to their smart screens. We're seeing increasing evidence of potential harms to mental and physical wellness. A recent survey of American teenagers revealed that more than a third are online almost constantly, while nearly all use at least one social media platform.[3] While social media can provide entertainment, opportunities for creative expression, channels for connection with people in distant places, and learning about many things, it can also lead to social withdrawal, depression, anxiety, sleep disturbance, peer pressure, and bullying.[4] Countries worldwide — China and India, for example — are seeking to address these challenges.

The concern is not just about youth. These issues affect all of us, directly and indirectly. With overdependence and addictions of all kinds, we lose touch with the natural functioning of our bodies and impede our growth and evolution. We all need to know how to reboot and rebalance our nervous systems, how to clear away damage from overuse, information overload, and misinformation. And we need to find other sources of fulfillment.

Current treatments have not proved effective long term. Researchers now understand that chemical dependence, for example, is driven by complex and interconnected factors — physiological, psychological, social, and spiritual. No current treatments address the root of these challenges.

But the remedies offered by Consciousness-Based technologies do. These give deep rest and the experience of inner bliss, removing fatigue and deep-rooted stress and restoring body and mind to their natural state of balance. Dozens of scientific studies have proved their remarkable efficacy. And they're easy to learn and practice, for people of all ages.

More than a dozen studies on the Maharishi Effect, moreover, have found that when coherence-creating groups of meditation experts are large enough, alcohol consumption and drug abuse drop significantly nationwide. This means we can address this societywide challenge with a society-wide remedy.

Artificial intelligence (AI and AGI)

The impact of artificial intelligence on humankind is a grave concern, especially as AI becomes increasingly pervasive. The advent of *artificial general intelligence* (AGI) — also called *artificial global intelligence* — has heightened this concern significantly.

The difference between AI and AGI is critical. AI machines must be preprogrammed to perform whatever the specific required function happens to be. A subset of AI is generative AI or Gen-AI. Unlike narrow AI, Gen-AI can generate new content, but it also does not think or have intent. AGI machines, on the other hand, theoretically have intelligence equal to us in every way yet perform the same tasks better than their human counterparts. AGI machines can also increase their intelligence and reproduce themselves.

AGI is on the horizon, and in some applications it is already here. It promises to help us by predicting and controlling the weather, the crops, food chains, finances, the economy, and national defense systems, and in many other vital ways.

But because AGI will vastly outperform humans, there are fears that intelligent machines will take over a staggering number of jobs without providing alternative employment.

Another widespread concern is potential bias because of the data the machines are initially trained on. If that data contains prejudices or

misinformation from its creators, these are reflected in the performance of the machines.

And there is this central question: Will AGI have consciousness? Certainly it *is* Consciousness, because Consciousness is all there is. But will it *have* consciousness in the same way that a human being has consciousness? There is much debate on this point. That debate aside, the core consideration is whether it will operate in our collective best interests. Will it reflect a wise, loving, evolutionary consciousness or a consciousness of vast intelligence but no empathy, no moral structure or ethics? This is known as *the alignment problem*: the challenge of ensuring that AI systems will behave in ways that align with human values.

While to us, AGI machines might seem akin to gods, they could regard us as inferior beings, treating us as many people now treat plants, animals, and the environment. Could they turn us into pets or dispose of us altogether? This is a real and growing concern.

We will undoubtedly need AI for our long-term survival, but we must keep AGI under control and ensure that it serves our well-being. For AGI to help us sustain life on this planet, or even take us to another planet or solar system, it must be truly global. This means it must include the whole of life in its considerations. Our individual and collective consciousness must ensure that AGI is built on a platform with a globally comprehensive outlook, programmed for the flourishing of all things.

Deploying AGI or any other technology for financial, political, or military advantage, or even world domination, would mean favoring some and disfavoring others, and that would lead to alarmingly unpredictable consequences. AGI would almost certainly remove its creators if we were motivated only by small-mindedness and selfish interests. In short, AGI could rescue us or eradicate us.

Two applications of AI that are growing quickly in popularity are Virtual Reality (VR) and Augmented Reality (AR). These applications offer a richer perceptual experience than most people currently enjoy. But our human nervous systems can be cultured to reflect higher states of consciousness that are vastly more sublime than anything offered by VR and AR.

All our experience and knowledge are always structured in our consciousness, and we can develop the enormous, hidden potential of our consciousness by transcending. Rising to higher states of consciousness through transcending, we naturally enjoy heightened experience in every

facet of our lives, not just when we are connected to a device. We begin to perceive more glorified levels of the natural world and come to know everything as of the same unbounded essence as our infinite Self. Rising consciousness also brings significant intellectual and moral growth.

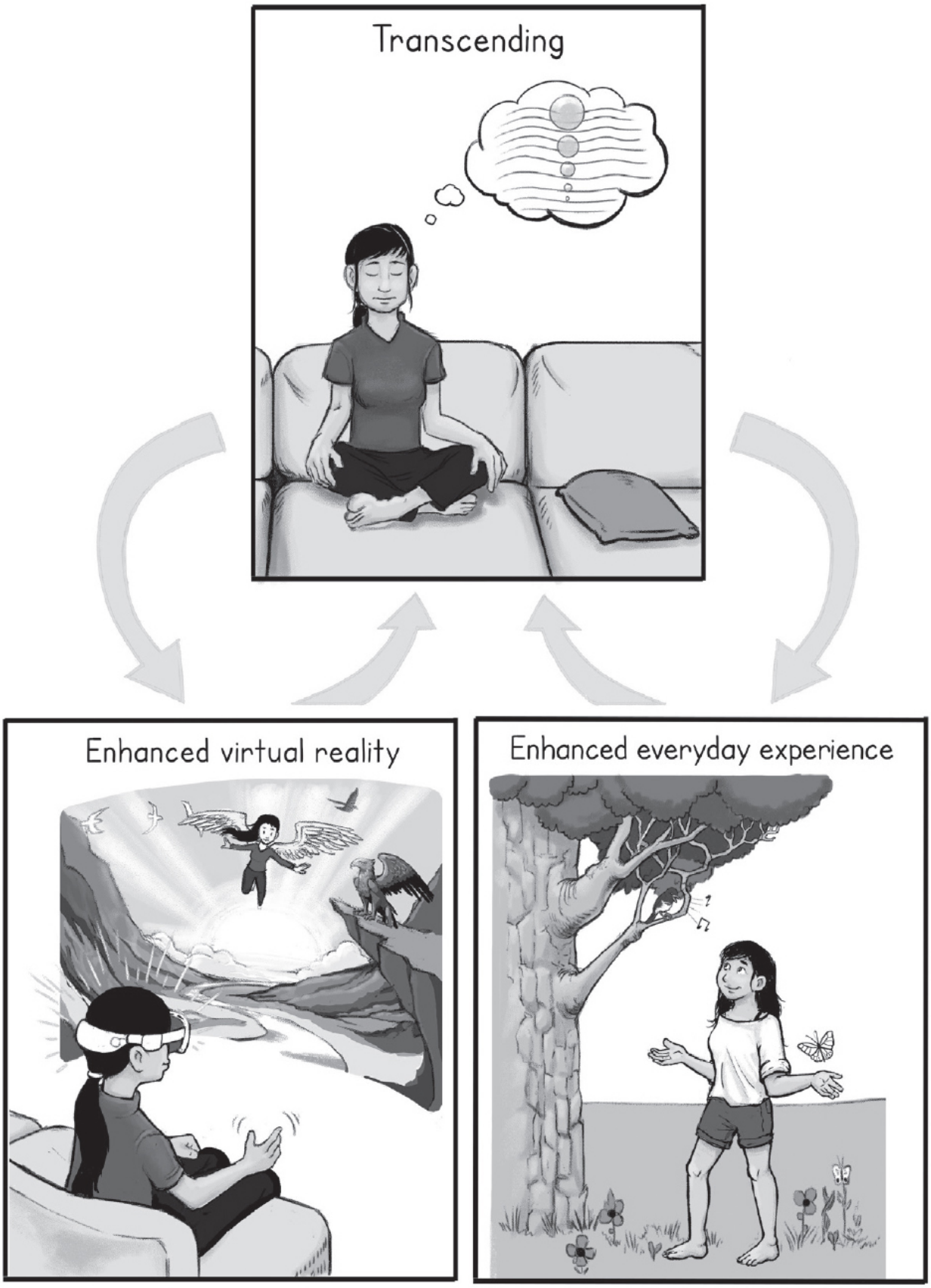
Naturally, the development of our perceptual abilities will enhance our experience of VR and AR. But the fantasies these technologies provide may distract us from realizing the full value of our consciousness. Users of these technologies may be so enthralled by the captivating experiences of VR and AR devices that the subtler aspects of experience escape them, and they may deprecate or simply overlook the greater significance of transcending. This would retard the far more important growth to higher states of consciousness and do little to increase the coherence in world consciousness that is so much needed today.

Above all, do no harm. This famous dictum from the ancient Hippocratic Oath, though directed originally toward physicians, applies universally and is more relevant today than ever before. Apart from whatever good they may do, all advanced technologies are also capable of enormous harm. If we remain in conflict with each other and the environment, it seems likely that AGI will exclude us. It is estimated that more than 99 percent of all species that have ever lived on Earth are now extinct. There are no guarantees for humanity.

Virtual reality

VR devices: artificially induced experiences
Return to everyday sensory experience

Consciousness-based reality


Transcending
Enhanced virtual reality
Enhanced everyday experience

To continue and to thrive as a species, we need to evolve more quickly than anything Darwinian mechanics and palliative remedies can offer. It is essential that all of us, and especially those who develop and deploy VR, AR, AI, AGI, and other advanced technologies — nuclear, genetic, biological, chemical, cyber — should act from the holistic platform of higher consciousness, ideally Unity Consciousness. Then all our actions will spontaneously be for good. Equally essential, world consciousness must be coherent and integrated, so that no negativity can arise.

As our consciousness, both individual and collective, becomes broader, more mature, more coherent and integrated, our technologies will become more robust and our efforts at progress will be increasingly supported by natural law — by the balanced self-interacting dynamics of pure Consciousness, which is our true inner Self and the Self of everything.

If we can realize this vision, we can be confident that AGI and the other advanced technologies will be universally beneficial, serving our flourishing and the needs of all life on Earth. The more peace on Earth is powerful, the more power on Earth will be peaceful.

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CONCLUSION:
A Final Note

Who are we? What is our essential nature? What is the essential nature of the universe? How are we connected to it? How can we be happiest? How can we live a good life, best serving ourselves and others? What are our highest potentials and how do we achieve them? How can we meet all our challenges and foster peace, in ourselves and throughout the world?

These age-old questions are more pertinent than ever today. They are far from academic — the answers turn out to be crucial for the progress, even the survival, of the human species.

With this book I have presented a paradigm of reality that addresses these questions. The basic concept here is hardly new. As I said at the start, traditions and cultures worldwide share the understanding that behind or beneath the visible, physical world lies an invisible, nonphysical reality, more complete and more powerful than the reality we inhabit — the unity from which all things are born. Call it the sacred, the divine, the Godhead; call it the Good, the Tao, the Absolute. Whatever we may call it, the transcendental reality is one and the same. And in every tradition and culture this transcendental reality is understood to be accessible to human experience, available not outside ourselves but within us.

I believe that in this book I have taken several important new steps. Beyond characterizing this underlying reality as Consciousness, I have described its internal dynamics in detail. I have shown how it resolves the long-standing mind–body problem and sheds light on several issues in quantum mechanics, such as the measurement problem and causal action at a distance.

And I have addressed a question that thinkers throughout the millennia have pondered: How does this underlying unity become diversity? How and why does the One become the Many? I have shown in detail that the one never actually becomes the many — rather, it only appears to do so from

certain limited perspectives. In reality, it always remains the one: Consciousness is all there is.

Just as the ocean gives rise to infinite varieties of waves that never become anything other than the ocean, so too Consciousness, simply by being conscious of itself, creates infinite perspectives within itself that form the seeds of manifestation. And that manifestation takes place entirely within Consciousness.

Yet, like waves on the ocean of Consciousness somehow failing to recognize that they and the myriad waves surrounding them are identical with the ocean itself, we commonly fail to experience that we and everyone and everything around us are manifestations of the one Consciousness and that Consciousness is our ultimate Self, the Self of the universe.

As abstract as this idea may sound, this simple oversight forms the source of all the world's travails.

This is not an intellectual oversight, though intellectual understanding is important. It's a gap or omission in how we experience ourselves and the world around us.

Few people have any idea what they are missing. Few have any concept of how blissfully fulfilling life becomes as the larger and deeper experience of Consciousness dawns — that we can transform our lives, transform the world, simply by awakening to this ever-present yet somehow hidden reality.

The mistaken worldview that matter is fundamental, that everything is physical, has aided progress in science and technology over the past four centuries. But it has come at a cost. And fortunately it is giving way today to a more holistic and complete understanding.

I have had the privilege of speaking with dozens of thought leaders in physics, philosophy, neuroscience, psychology, computer science, and many other fields. All of them, I find, are deeply interested in Consciousness, in the role Consciousness plays in human life and in nature, and they are wide open to this new paradigm. Some of them, in fact, had already come to the basic conclusion that Consciousness is fundamental.

I believe a sea change is under way.

This paradigm is not just another philosophical perspective, one among many. It is simple, comprehensive, and has immense explanatory power, addressing questions that have long vexed philosophers and scientists. It has a remarkable body of scientific evidence supporting it. Most important, it

comes equipped with techniques — technologies — for developing and expanding our personal consciousness, for awakening to the reality that we are ultimately unbounded pure Consciousness and so is everything else.

There is a Sufi parable about a man who embarked on a lifelong journey in search of a precious pearl. He traversed distant lands, crossed treacherous oceans, and scaled towering mountains, all in the relentless pursuit of this elusive gem. He believed that possessing this pearl would grant him unparalleled wealth, power, and happiness.

Years turned into decades, and the man's quest led him to the far corners of the world. Yet despite his unwavering determination, the coveted pearl remained beyond his grasp.

Weary and disheartened, he returned to his humble home, having exhausted every conceivable resource and avenue of pursuit. As he gazed upon the simplicity of his surroundings, something within him shifted. It was then that he realized the profound truth that had eluded him throughout his journey.

In the quietude of his own heart, the man discovered a luminous pearl of incomparable beauty. This radiant gem, more precious than any he had sought in the world, emanated inner wisdom and love. It illuminated his being with a transcendent light, filling his soul with immeasurable contentment and peace.

Each of us has that same brilliant pearl in our own heart. It is called Consciousness.

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Appendices

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APPENDIX A

VEDA AND THE VEDIC LITERATURE IN HUMAN PHYSIOLOGY

For millennia, the Vedic families of India have maintained Veda and the Vedic literature in their purity. Through a rigorous method of teaching, they have passed it down unbroken and with nearly flawless accuracy from heart to heart, generation after generation, to inspire one of the world's most profound and longest-lived civilizations. Over all these centuries, countless commentators have found in the meaning of its words the deepest philosophy, the highest wisdom, and the most sublime poetry.

With extraordinary insight, Maharishi recognized in the sounds of Veda much more than mythology, philosophy, and poetry; he saw a clear and direct representation of the self-referral dynamics of pure Consciousness itself.

What we call *Veda* today was cognized by *rishis* who lived thousands of years ago. With their fully developed consciousness and exceptionally refined nervous systems, these ancient sages experienced in deep meditation the unbounded silence of pure Consciousness. In that dynamic stillness, *the silent hum of the self-interacting Consciousness* zoomed into their awareness. This is why Veda is considered *shruti*, or "that which is heard." Maharishi described these reverberations within Consciousness as *primordial sound.*

The rishis discerned these fundamental sounds with such acuity that they could reproduce them verbally, chanting them just as they heard them within Consciousness. The sounds were later organized in aural structures of syllables, words, phrases, paragraphs, stanzas, and chapters, and have been recited in this way, quite perfectly, down through the ages. Still today,

the sounds of Veda are chanted by highly trained experts, and in this way the deep cognitions of the ancient rishis have been preserved.

Veda is now the oldest continuous recitation tradition on Earth. Because the sounds of Veda are representations of the self-referral dynamics of Consciousness, which are beyond space and time, Veda is held to be *nitya apaurusheya*, "eternal and not man-made."

The rishis' experience calls to mind the great composers, who sometimes experienced a symphony in their awareness as if being delivered to them in its entirety, and they would then write down those sequences as a structure of sound and silence. For example, the nineteenth-century German composer Johannes Brahms wrote:

> To realize that we are one with the creator, as Beethoven did, is a wonderful and awe-inspiring experience. . . . I always contemplate all this before commencing to compose. This is the first step. . . .
>
> I immediately feel vibrations that thrill my whole being. . . . In this exalted state, I see clearly what is obscure in my ordinary moods. . . .
>
> Straightaway the ideas flow in upon me . . . and not only do I see distinct themes in my mind's eye, but they are clothed in the right forms, harmonies, and orchestrations. Measure by measure, the finished product is revealed to me when I am in those rare, inspired moods. . . .
>
> [I feel that I am], for the moment, in tune with the Infinite, and there is no thrill like it."[1]

Other composers and creative artists have reported the same inspiration and spontaneity of composition.

Maharishi has described Veda as emerging from a similar but much deeper kind of inner experience. Thus, the primary value of Veda lies not in its meaning but in the structure of its sounds expressing the inner dynamics of pure Consciousness, as a symphony expresses the dynamics of fine levels of feeling.

Since Consciousness is all there is, every expression of thought and feeling, art and science, imagination and cognition is an expression of Consciousness. Every such expression reflects the quality of Consciousness of the observer, the experiencer. Everything one does, says, thinks, feels, or imagines reflects one's consciousness. Because Veda was cognized by exceptionally pure individuals in Unity Consciousness, it reflects the inner dynamics of Consciousness, how the unmanifest pure Consciousness manifests within itself — the dynamics of the laws of nature that structure the universe. For this reason, Maharishi often referred to Veda as the *Constitution of the Universe*.

Maharishi felt that because Veda and the human physiology are both the most orderly expressions of the dynamics of Consciousness — Veda manifesting as sound, human physiology as physical structure — they must be similar in their structure and function. With Maharishi's guidance, I spent many months conducting this research and several years refining my discovery that, indeed, human physiology, in both structure and function, is an exact replica of Veda and the Vedic literature. The various human organs and their divisions and subdivisions have the same organization as the syllables, words, phrases, paragraphs, stanzas, and chapters of the Vedic texts.

I published my findings in several books.[2] My research also gave rise to practical methods of using the Vedic sounds for balancing one's physiology and treating chronic disease. Research on their effectiveness in health care has been conducted, and is ongoing, at various institutions.[3]

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APPENDIX B

THE CONSCIOUSNESS PARADIGM AND THE PHILOSOPHY OF MIND: A Personal Note

As a child, I was led to believe there were two basic constituents/substrates from which everything is made: the spiritual and the physical. The physical is energy, matter, and the concrete universe we experience through our senses and measure with our instruments. The spiritual is all that is not amenable to direct sensory experience and measurement — our soul, our consciousness. Because this worldview assumes two different constituents of ultimate reality, in philosophy it is called *dualism*.

Dualism covers a variety of beliefs about the degree to which these two basic constituents are present in beings, creatures, and objects. Theoretically, there could be three types of entities:

- spiritual beings such as gods, angels, and demons
- mixed spiritual and physical creatures such as humans
- purely physical objects

Animals, plants, and other animate and inanimate objects other than humans have been considered in many belief systems to have no spiritual component, particularly no soul but also, in some cases, no consciousness. Others believe some consciousness, a vital element or *élan vital*, is present in certain animals and in aspects of nature, such as the wind, the sun, rivers, and mountains. There are also those who postulate that everything,

including the most elementary particles, have consciousness. The latter are labeled *panpsychist dualists.*

Dualists also debate the extent to which various phenomena are natural or supernatural, and how the spiritual and the physical can influence and act upon each other. And there are many theories among dualists about the origin and evolution of the universe. All of these beliefs have been based on personal cognitions, intuitions, revelations, or imagination — in essence, personal subjective perspectives that were then reinforced by reasoning.

To sort out what is true among these concepts, we humans developed the objective scientific method. Finding that there were precise laws that manage the physical and to some extent the mental realm, science put aside all that is spiritual. It focused only on the measurable aspects of experience, carefully describing the laws that explain what we observe.

During my scientific and medical studies, all beliefs and opinions about Consciousness and, certainly, about spirituality were shunned. The scientific study of the material universe had led to such a reliable understanding of physical phenomena that all else seemed misleading. All supposedly supernatural influences were considered imaginary superstitions. Many thinkers and scientists discarded the spiritual altogether, adopting what is called *physicalism.*

Pure physicalism is a nondualist perspective. As such it is *monism*, meaning it postulates only one ultimate reality rather than two. In *monistic physicalism*, all nonphysical experiences, including consciousness, are thought to emerge from the evolution, organization, and rearrangement of physical/material constituents.

In this view, consciousness is said to be an emergent quality. Some extreme physicalists even go so far as to propose that consciousness does not exist. But denying the existence of consciousness is a futile attempt to get rid of the hard (and currently unsolved) problem of explaining how consciousness could possibly emerge from matter.

Consciousness is most fundamental. It allows us to experience, feel, learn, know, and share knowledge. Without consciousness, we could not do science. Moreover, all that is physical is always changing, never the same. This is what led great scientists and philosophers to declare that the one thing we are most sure of is that we are conscious beings.

Descartes's statement "I think, therefore I am" is the classic formulation of this. And as scientists looked deeper into the ultimate constituents of

matter, they discovered a reality that was not material at all — delocalized fields of energy and potential energy unified at their basis. As I have noted, some of the most prominent scientists started to doubt the purely physicalist perspective, declaring that the universe is more like a great thought than a physical machine.

In the mid-1970s and early 1980s, I became increasingly familiar with Transcendental Meditation and the knowledge brought to light by Maharishi Mahesh Yogi. I discovered the ancient Vedic perspective on reality, particularly Advaita Vedanta, which states that Consciousness is the ultimate reality, the ultimate constituent of all there is. This is another kind of monism.

Centuries ago, philosophers postulated that mind existed before matter. Because consciousness implies ideation, this perspective was called *idealism*, and those who believe that the spiritual/mental — consciousness — is primary were called *idealists*. *Monistic idealism* is the worldview in which one consciousness is the origin of all there is. Among idealists there are different views. For example, some postulate multiple rudimentary loci of consciousness that combine to become higher consciousness. They are *idealistic panpsychists* but not monistic idealists.

Looking deeper into the nature of reality and inspired by Maharishi's monistic idealist teaching, I adopted the latter understanding about the nature of ultimate reality. For me, this was not a belief system but a conviction based on the convergence of many factors, including logic, my personal experiences and those of millions of other people, and empirical data.

There were two fundamental turning points in my thinking. One was my discovery of Veda and the Vedic literature in human physiology, which I described in a book published in 1994. The other was the simple principle brought to light by Maharishi that the one unbounded Consciousness is conscious of itself and thus has within it the three values of observer, process of observation, and observed.

This concept (which I examine in detail in this book) was for me the key in solving a problem that had not been adequately addressed by previous idealists and panpsychists: How within Consciousness do the universe and all its physical and nonphysical manifestations emerge?

The paradigm that developed as I explored the answer to this question has many interesting implications and considerable explanatory power in

addressing fundamental problems in both philosophy and science. It unifies mind and matter, consciousness and physiology; it bridges the divide between idealism and empiricism; and it coherently resonates in areas of human concern that have not been clearly talking to each other for a long time, including ontology, epistemology, ethics, science, and spirituality.

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APPENDIX C

TECHNICAL NOTE ON THE RELATIVITY OF SIMULTANEITY

More than a century has passed since Einstein's special and general theories of relativity revolutionized our understanding of space, time, and gravity. Yet, even after all this time, few of us understand these theories.

But that doesn't mean we don't use them every day. Every time we switch on the navigation system in our car, and whenever satellites are involved in global telecommunications and broadcasting, we are relying on relativity theory for accuracy. Without relativistic corrections, we couldn't explore the far reaches of outer space, nor could we do the very precise calculations needed for research into the tiny realms of atoms and elementary particles.

Because many readers may have found the time-dilation scenario described in Chapter 4 almost unbelievable, I've added this appendix to emphasize the important point that time and space are not the absolutes our everyday experience tells us they are. For most of us, this appendix will be far too technical, but hopefully some scientifically minded readers will appreciate it.

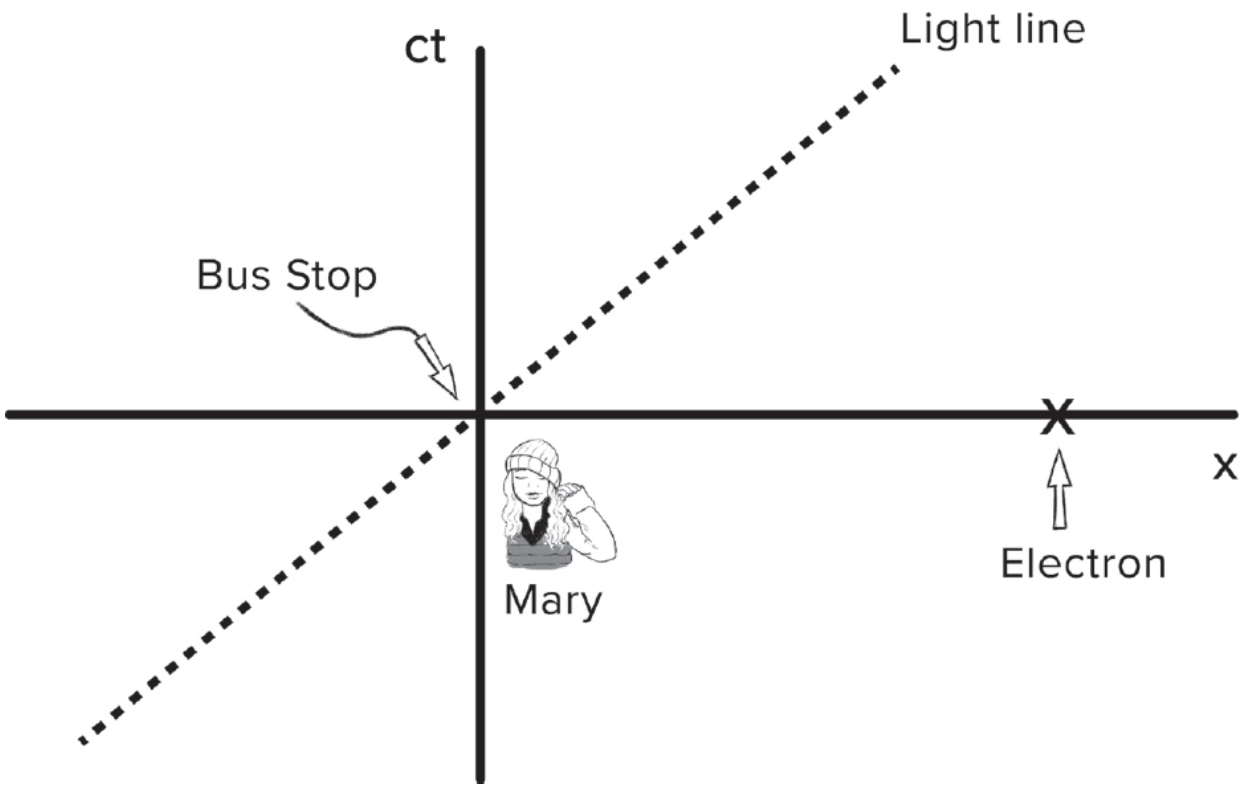

Figure 1 – The bell tolls at noon, simultaneous with the close of the alien election. Mary and the election are in the same rest frame (in the same rest frame).

Immediately after these pages, I have included a glossary defining terms possibly unfamiliar to some readers. I hope these definitions too will help clarify and enrich points I have made throughout the book that may be doubtful or obscure.

Now to the story in Chapter 4. Mary is at rest at a Manhattan bus stop in New York City at noon, and simultaneously, in a galaxy three million light-years away, an election was held and the polls just closed.

The *x*-axis in Figure 1 above represents spatial distance, while the vertical *ct*-axis represents time. The speed of light *c* (in meters/ second) functions as a conversion factor, so that *ct* represents time in light-meters and the slope of the light line (dotted line) is $c\Delta t/\Delta x=1$. Note that all events on the *x*-axis are simultaneous from Mary's perspective, since they happen at the same time ($ct = 0$). Each object at rest in a given frame travels in space-time in a direction parallel to the time axis in that frame.

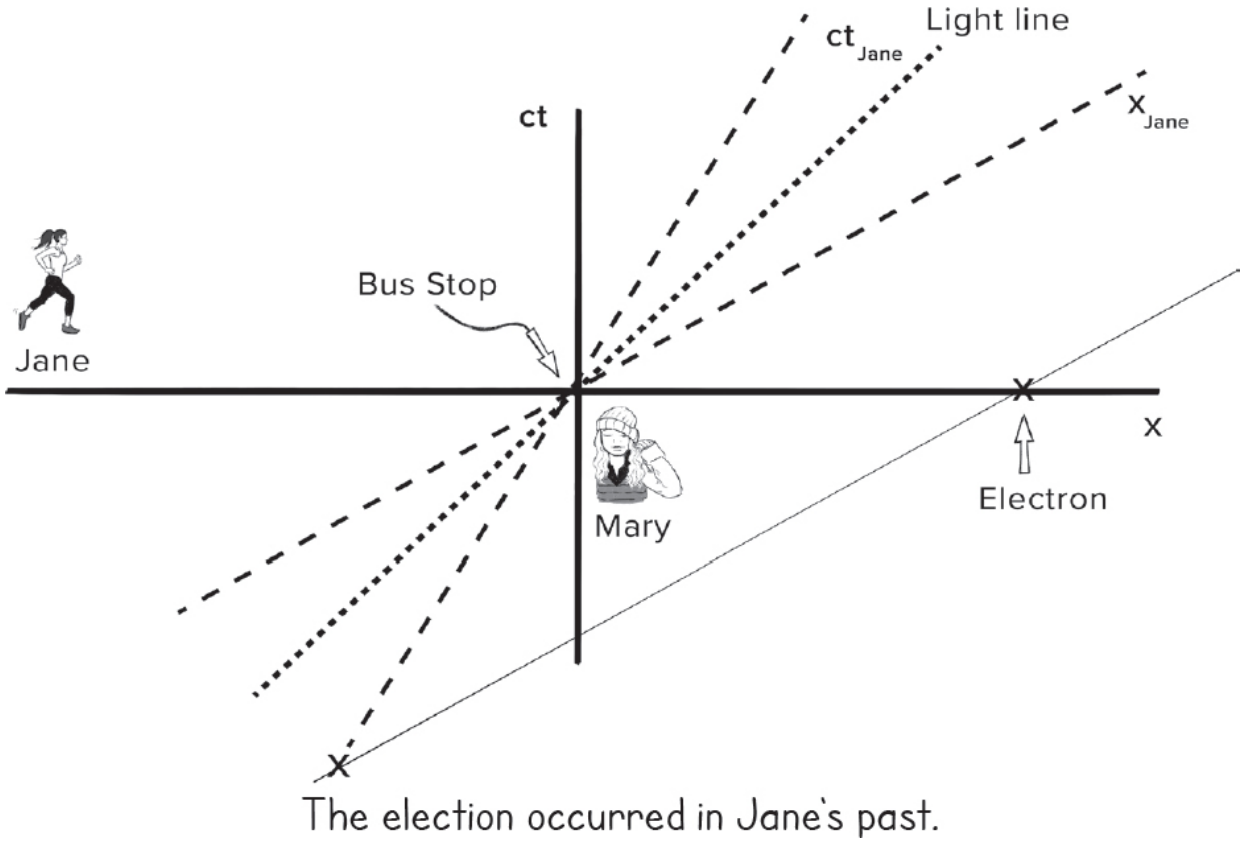

Figure 2 – Jane hurries to the bus stop from the West Side. Her space-time axes (dashed lines) are skewed from the perspective of Mary's rest frame. The alien election occurred in Jane's past.

Figure 2 incorporates Jane's coordinate axes (ct_{Jane} and x_{Jane} in dashed lines) from the perspective of Mary's rest frame. Note that, although the alien election is simultaneous with Mary at the bus stop, it happened in the past from Jane's perspective.

Figure 3 incorporates John's coordinate axes (ct_{John} and x_{John} in dashed-dotted lines). For John, the alien election will occur in his future. In all three frames, light has the same speed, $c = 3 \times 10^{8}$ m/s.

Although simultaneity is relative to the observer, the interval $(\Delta s)^2 = -(c\Delta t)^2 + (\Delta x)^2$ is invariant. In Mary's reference frame, $\Delta t = 0$ because the election is simultaneous with Mary's standing at the bus stop at noon.

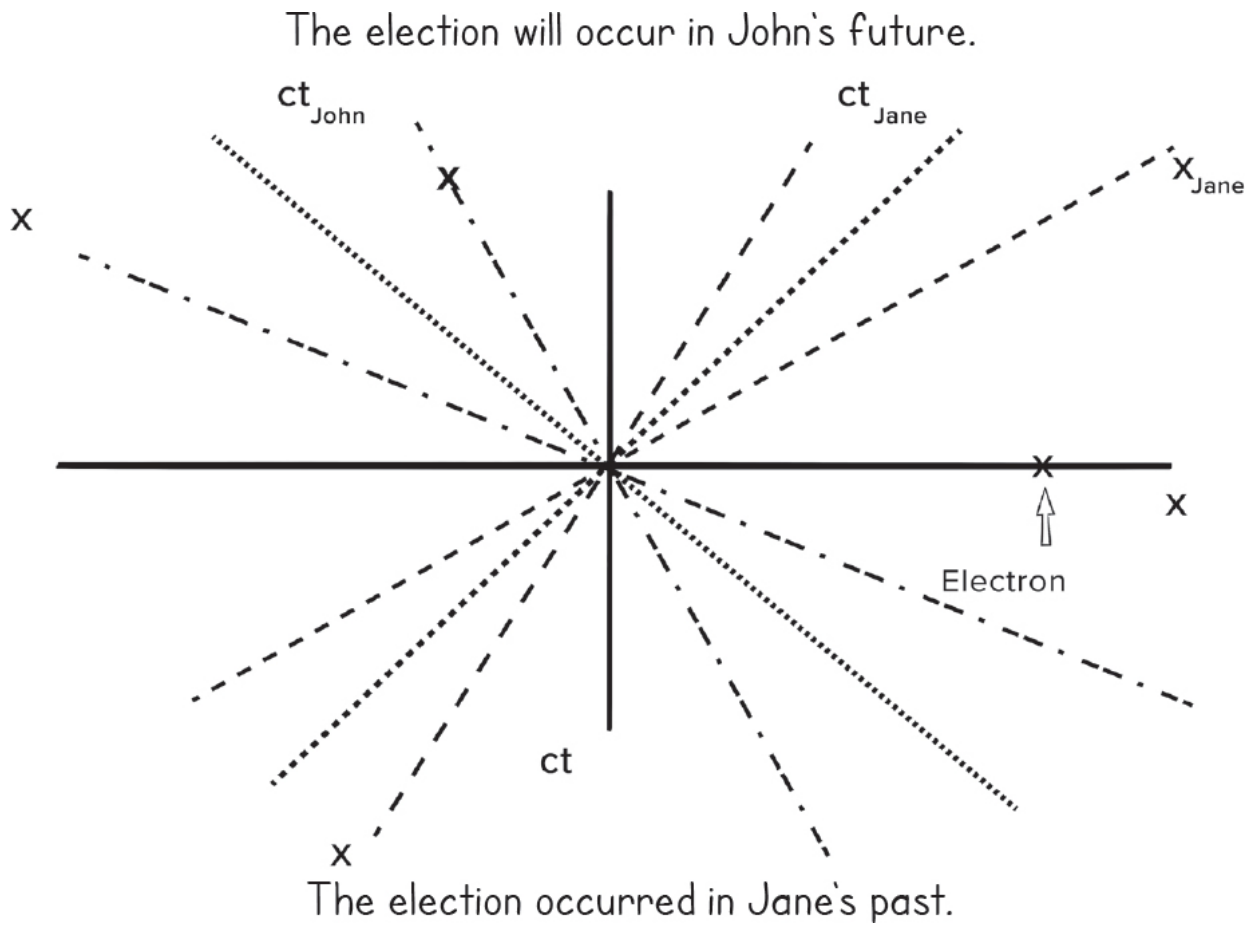

Figure 3 – John hurries to the bus stop from the East Side (spacetime axes in dashed dotted lines). The alien election will occur in John's future.

So $(\Delta s)^2 = (\Delta x)^2 =$ (3 million light years)^2 = (2.8 x 10^{22} meters)^2. By invariance of the interval, $(\Delta s)^2 = (\Delta x)^2 = -(c\Delta t_{Jane})^2 + (\Delta x_{Jane})^2 = (2.8 \times 10^{22}\text{m})^2$. But by the Lorentz transformation, $\Delta x_{Jane} = \Delta x/\sqrt{(1 - v^2/c^2)}$, so $(c\Delta t_{Jane})^2 = v^2 (\Delta x)^2 / (c^2 - v^2)$. Given that Δt_{Jane} in the example is a week, it follows that Jane's velocity v toward the bus stop is 1.9 m/s or 4¼ miles per hour.

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GLOSSARY

Absolute, the – Non-changing; always equal to itself and self-sufficient; existing independently of other things; in contrast to the relative. In the Consciousness paradigm, it is equivalent to the unmanifest realm of pure Consciousness, the one eternal reality of unbroken wholeness.

Advaita – A Sanskrit word meaning "nondual" (*dvaita*, meaning "dual"; the alpha privative *a* negates); typically used to denote the nondual interpretation of Vedanta, one of the six Darshanas, subdisciplines of Vedic philosophy.

Ahamkara – The individual; the separate identity or ego; the sense of being a unique self.

Ahimsa – The ethical principle of nonviolence, non-injury, not causing harm to other living beings, which evolved in the Vedic tradition. Derived from the Sanskrit root *hims*, meaning "to strike," joined with the alpha privative *a*, which negates.

Alignment problem – The challenge of ensuring that systems of artificial intelligence behave in ways that align with human values.

Analysis – In science, separating a whole into its parts to understand its nature. In the Consciousness paradigm, analysis is Consciousness knowing its own endless potential ways of being conscious from the broadest to the narrowest.

Asana – Literally, "sitting down," a Sanskrit term for the physical postures assumed during yoga practice, traditionally understood as steady and comfortable sitting positions for meditation but in modern times including a wide variety of other poses.

Atman – The ultimate, singular Self, of which all possible individual selves or *ahamkaras* are expressions.

Attention – The movement of Consciousness; the flow of awareness from a subject toward an object. Attention is needed for an object to be perceived as real. An object is considered real only by a subject whose awareness flows to it.

Awareness – The faculty of being consciously aware of objects, including oneself. Individual awareness we may call consciousness with a lowercase *c*. The pure awareness of totality or wholeness is Consciousness with an uppercase *C*.

Ayurveda – Literally, the "knowledge" (Veda) of "life or life span" (*ayus*); hence, "the science of life." Ayurveda is the ancient, prevention-oriented approach to health in the Vedic tradition. It uses simple techniques, including meditation and herbal formulas, to restore balance to and rejuvenate and revitalize body and mind. At its core, Ayurveda is Consciousness-Based health care, since both mind and body are expressions within Consciousness.

Being – In our Consciousness paradigm, there is absolute Being and relative limited being. Ultimate absolute Being is the omnipresent, eternal field of unmanifest pure Consciousness. Relative being is the nature or essence of what is said to be — that which is. Since Consciousness is all there is, all relative beings are aspects of Consciousness, limited aspects of absolute Being. Limited relative subjects observe each other and see each other as objects. Objects are perceived to exist for the subject observing them. Thus, "to exist" is to be an object for a subject. "To be" (being) is to be a conscious observer.

Bit of Consciousness – A moment of experience, composed of a triple: subject, process, object; observer, observing, observed; or knower, knowing, known.

Brahman – Totality, the wholeness of all that is, both absolute and relative. *Brahman* is the wholeness that is more than the collection of the parts, unmanifest and manifest Consciousness, One and many. It is expressed

in the *Chandogya Upanishad* as *Sarvam khalvidam Brahma* — "All this is Brahman, totality."

Buddhi – Intellect, discrimination; the faculty of Consciousness to distinguish among its perspectives. Buddhi comes from the root *budh*, which means "to be awake, to know."

Cartesian dualism – The theory of the seventeenth-century philosopher and mathematician René Descartes, who posited that the body (matter) and mind (consciousness) are two distinct, coexisting fundamental substances.

Cascade – The roiling cascade or flow of bits and modes of Consciousness looking at each other from a multitude of different perspectives, presenting multiplicity within singularity.

Collapse of the wave function – A concept in quantum mechanics; when a quantum object with probabilities defined by a wave function is observed or measured, the wave function *collapses* from a condition of multiple possible states of position, time, momentum, and spin to a single state.

Collective consciousness – An aggregate of the individual personal consciousnesses of the members of a group, family, community, nation, or the world. Each individual consciousness influences the collective consciousness, which in turn influences each individual consciousness.

Concept – In this book, *concept* is often used in a particular sense to indicate that which is not real but imagined; virtual.

Consciousness – For an individual, consciousness (lowercase *c*) is the state of being awake, aware, and conscious of surroundings, perceptions, thoughts, identity, and so on; localized, personal consciousness; and also the property of consciousness. Consciousness (uppercase *C*) is singularity, all that there is, unmanifest and manifest; also described as pure Consciousness.

Constitution of the Universe – The fundamental dynamics and underlying laws of how pure Consciousness manifests.

Cosmic Consciousness – A developed state of personal consciousness beyond the ordinary states of waking, dreaming, and sleeping. Cosmic Consciousness is enlightenment. Cosmic Consciousness is when the inner experience of unbounded awareness, the Self, is never absent during waking, deep sleep, and dreaming.

Determinism – The philosophical view that everything is predetermined by preceding events, causes, or natural laws.

Devata – The energetic movement of observing; the dynamism linking an observer with an object of observation to create an experience; the laws of nature.

Dualism – The philosophical theory that there are two distinct fundamental substances, matter and mind, which somehow interact. See also *Cartesian dualism.*

Dynamism – The infinite creative energy of manifestation inherent within the silent oneness of pure Consciousness. Dynamism arises within silence from the intrinsic nature of Consciousness to be conscious of itself and to play the three interacting roles of observer, process of observing, and observed.

Easy problems of consciousness – Understanding the measurable correlations between the brain's machinery and mental functions, such as memory and forgetting, vision and hearing; comparing changes in the brain with changes in the flavor of personal consciousness. Contrasts with the hard problem of consciousness.

Ego – In Sanskrit, *ahamkara*. The sense of self; the separate identity or unique individual perspective within Consciousness.

Ekpyrotic – From the Greek *ekpyrosis*, meaning "conflagration," a model of cosmology proposing that the big bang was actually a big bounce, a transition from a previous period of contraction of the universe to the

present period of expansion. In the cyclic version of this theory, the universe bounces periodically.

Emergence – The emergence of multiplicity within oneness: creation, birth, evolution. Pure Consciousness looks at itself and emerges within itself in a cascade (see separate entry) of an infinite number of perspectives. Often used to explain that a new property not available in the parts emerges from the collection of the parts.

Empiricism – The philosophical theory that all knowledge comes from our sense experience, particularly our observation of the phenomenal world, rather than from subjective ideas, theories, or intuition. A central assumption of experimental science.

Enlightenment – Also called Self-realization, liberation, and awakening. First realized as Cosmic Consciousness, a state in which unbounded awareness, the Self, is never absent in one's personal consciousness during waking, dreaming, and deep sleep. Enlightenment develops further in the yet higher states of God Consciousness and Unity Consciousness.

Entanglement – A quantum phenomenon in which the behaviors of two or more particles are inextricably connected. They form an interdependent whole, such that measuring the state of one particle instantly affects the other, even when the particles are separated by vast distances. Entanglement in the Consciousness paradigm is not restricted to pairs of quantum particles but is generalized to the entire field of manifestation. This means that whatever happens anywhere influences everything in the universe.

Entropy – A measure of randomness in a system; in common parlance, a decline from relative order to disorder. A closed system in the manifest tends toward higher entropy over time; that is, to disintegrate.

Epiphenomenon – A by-product. In the science of mind, the widely held theory that mental states are by-products of (epiphenomena of) physical events in the body.

Explanatory gap – The problem of physicalist theories being unable to explain how physical processes produce subjective experience.

Free will – The power to choose from alternatives without being constrained.

Gap – What makes objects appear separate from one another in space and time. Perceived gaps between moments give us the sense of sequence in time (temporal separation), and perceived gaps between objects give us the sense of space (spatial separation).

God Consciousness – A higher state of personal consciousness beyond the ordinary states of waking, sleep, and dreaming. Also referred to as glorified Cosmic Consciousness. A state of enlightened personal consciousness in which one's perception has been refined to experience the sublime beauty of the celestial level of the manifest along with persistent, inner, unbounded awareness.

Hard problem of consciousness – As defined by philosopher David Chalmers, it concerns the difficulty of understanding why and how humans and other organisms have subjective experience; it contrasts with the easy problems of consciousness.

Hiding – A fundamental characteristic of objecthood; when the object dominates in awareness and the subject and process go into the background and their true nature as Consciousness is hidden.

Idealism – The philosophical theory that consciousness, not matter, is fundamental. The Consciousness paradigm described in this book is a particular idealist theory, an example of monistic idealism. It posits that Consciousness is all there is and that all manifestation arises within it.

Identification – Perceiving one's identity as a specific entity only; generally, it is the overshadowing of the true nature of the observer as Consciousness by the object of observation.

Illusion – A misperception or misapprehension. In the Consciousness paradigm, illusion is regarding matter as something other than

Consciousness.

Instantiation – An instant when something — a thought, a feeling — is frozen in time and space as an object of perception; an example of something; a tangible example illustrating an abstract concept.

Intellect – In Sanskrit, *buddhi*. The faculty of Consciousness to be conscious of differences and resemblance, to discriminate among perspectives. The mind thinks; the intellect discriminates and decides.

Karma – A Sanskrit word meaning "action," more often understood as the consequences of past actions: *As you sow, so shall you reap*.

Laws of nature, natural law – Regularities, patterns, and cause-and-effect relationships obtaining in most events and phenomena. Natural laws are the basic rules describing creation, maintenance, and destruction within the manifest universe; for example, the scientifically established laws of physics, chemistry, biology, and so on.

Manas – Sanskrit for "mind." In the Consciousness paradigm, *manas* is the faculty of Consciousness to assume one perspective and then another, back and forth.

Manifest – All that is experienced from a limited perspective. This includes all that we perceive through our senses, measure through our instruments, and experience as thoughts, imaginings, sensations, and feelings. Manifestation is a set of bits of Consciousness in which the observer experiences a limited aspect of the nature of objects.

Manifestation – All that is manifest; also, the process of manifesting.

Materialism – The philosophical theory that nothing exists but matter. Materialism holds consciousness to be an emergent property of complex organizations and behaviors of matter.

Maya – A Sanskrit term of uncertain etymology loosely meaning "that which is not." In Vedanta, *maya* is the mistaken belief — the illusion — that the phenomenal world is something other than Consciousness.

Mind – In Sanskrit, *manas*. In the Consciousness paradigm, mind is the faculty of Consciousness to assume one perspective and then another, back and forth.

Mind–body problem – The assumed mystery of the relationship between our subjective, mental states and the structures and functionings of our physical system.

Moksha – A Sanskrit term meaning "liberation," "enlightenment"; sustained freedom from the hiding, binding influence of objects of perception. From the root *muc*, "to free, to let go, to release, to liberate."

Monism – The philosophical theory that all things arise from one fundamental substance, either matter or mind or something that is the basis of both.

Monistic idealism – The form of philosophical idealism proposed in the Consciousness paradigm: monistic, because reality is one (not dualistic or pluralistic); idealistic, because that "one" is Consciousness (not matter). The theory that there is nothing other than the singularity of Consciousness, the fundamentally undivided whole within which all manifestation occurs. In brief, Consciousness is all there is.

M-theory – A theory in physics that unifies all consistent versions of superstring theory; the leading candidate for a universal *theory of everything* that unifies gravity with other fundamental forces such as electromagnetism.

Multiplicity – More than one, whether concepts in the unmanifest or subjects, processes, or objects in the manifest.

Nirvana – A Sanskrit term definitionally related to *moksha*; liberation, enlightenment, awakening; literally, extinction, disappearance of the sense of individuality; merging with universality, referring to the release from the hiding and binding influence of objects of perception.

Nothingness – That which is not Consciousness. Since Consciousness is all there is, nothingness is nonexistence, nonbeing. In this book, it is also

used to mean that Consciousness is not a physical thing: no-thing-ness.

Observed – An object of awareness; any aspect of Consciousness observed by any subject.

Observer – Subject, knower.

Observing – The dynamic process linking an observer and an object of observation.

Oneness – Totality; wholeness; the singularity of Consciousness.

Panpsychism – The theory that the mental is fundamental and everywhere in the natural world.

Particle – A fundamental unit of matter.

Perspective – A point of view; a particular way of experiencing, perceiving, understanding.

Physicalism – The philosophical theory that views reality as consisting only of physical, material entities, whether particles or fields of energy. In physicalism, consciousness (all subjective experience) is viewed as either an illusion or a phenomenon emerging from the functioning of physical structures.

Pragya aparadh – Also, *prajna paradha*; a Sanskrit term for "mistake of the intellect"; in the context of Consciousness, to experience an object as real in itself and not as a manifestation of pure Consciousness; ignorance of the true nature of ultimate reality.

Pure Consciousness – Singularity, absolute and unchanging oneness.

Qualia – Subjective aspects of personal experience.

Quantum mechanics – The branch of physics that provides a mathematical framework to describe the behavior of matter and energy on the atomic and subatomic scales. It incorporates principles that challenge particle

behavior at the classical level and pose philosophical questions about the nature of reality.

Quantum tunneling – A phenomenon in which an atom or subatomic particle such as an electron or proton passes through a potential energy barrier that classical mechanics says it does not have sufficient energy to overcome; a consequence of the wave nature of matter.

Realism – In science and philosophy, the theory that matter — objective reality — has real existence, whether or not it is perceived by an observer. It can also be applied to consciousness. "Conscious realism" would mean that consciousness is real in itself and does not depend on an observer.

Relative – Entities, processes, or knowledge having meaning or significance only in relation to something else; the notion that how we experience the world depends on context and our perspective as an observer; the opposite of Absolute.

Samadhi – A Sanskrit/Pali term for the fourth state of consciousness, Transcendental Consciousness. Of various etymologies, for example: *sama*, the same, equalized, even, regular + *dhi*, intellect, understanding, reflection, meditation.

Sat chit ananda – Sanskrit terms found in the Upanishads meaning, respectively, "pure ultimate truth," "Consciousness," and "bliss"; considered descriptive of the nature of pure Consciousness.

Satori – A Japanese Buddhist term for the fourth state of consciousness, Transcendental Consciousness; derived from the verb *satoru*, "to know," and referring to a deep experience of *kencho*, "seeing into one's true nature."

Self, the – With an uppercase *S*, refers to Consciousness as primordial identity, the *Atman*. In Transcendental Consciousness, an individual realizes their personal ego as identical with the Self.

Self-interacting dynamics of Consciousness – Consciousness as if curving onto itself, interacting with itself, experiencing itself in the different perspectives of observer, process of observing, and observed, and cascading into a vast panoply of different perspectives or modes of being conscious.

Self-realization – Another word for liberation, enlightenment.

Singularity – In physics, a point that has an infinite value; in the Consciousness paradigm, the term is used mainly to denote pure Consciousness, oneness, pure existence, the absolute reality of totality beyond space and time, unbroken wholeness.

State of consciousness – In what state one's consciousness is. In particular, the three commonly experienced states of waking, dreaming, and deep sleep, plus the higher states of consciousness attainable through Vedic technologies such as Transcendental Meditation.

Submergence – The dissolution of an entity, a perspective, or bit of Consciousness. Submergence facilitates evolution, because progress happens in steps of emergence and submergence of bits, modes, patterns, and networks of Consciousness. It dissolves the old to allow transformation into the new.

Superstring theory – Also "supersymmetric string theory" or simply "string theory." A theoretical scheme for unifying all the fundamental particles and the four fundamental forces of nature (gravity, electromagnetism, the weak force, and the strong force) in a single theory that models the particles and forces as extremely small strings vibrating in a space-time of more than four dimensions. The five superstring theories are thought to be different limits of a single theory currently called M-theory.

Symmetry-breaking – The symmetry of the singularity of Consciousness is as if disrupted — broken — when, in its self-interacting dynamics, Consciousness adopts the conceptual roles of observer, observing, and observed.

Synthesis – In science, combining parts or components to form a connected whole. In the Consciousness paradigm, synthesis is the unifying force from multiplicity to unity. Synthesis is the return journey as perspectives in Consciousness come together to create wholenesses that are more than the sum of their parts.

Theodicy – Literally, "justifying God" in Greek. It is any attempt to resolve the problem of evil in the realm of supreme intelligence, power, and goodness. In this book, it is to define and explain the presence of evil in terms of the Consciousness paradigm.

Transcendental Consciousness – The fourth state of consciousness beyond the three common states of waking, dreaming, and sleeping. Also called pure Consciousness.

Transcendental Meditation – A simple, effortless technique to progressively transcend thought to quieter, more abstract states of awareness and experience pure Consciousness. (See next entry.)

Transcending – The experience in Transcendental Meditation in which one's awareness gradually settles beyond the subtlest level of thought and arrives at the abstract field of pure Consciousness and realizes the unbounded Self.

Turiya – A Sanskrit term meaning "the fourth," referring to pure Consciousness, the fourth major state of personal consciousness underlying the three commonly experienced states of waking, sleeping, and dreaming, and, like them, exhibiting its own unique style of physiological functioning; described in several Upanishads, notably *Brihadaranyaka*, *Chandogya*, *Maitreya*, and *Mandukya*.

Unified field – In physics, the theory of a single field unifying matter and the forces of the physical world. In the Consciousness paradigm, the unified field is the field of pure Consciousness.

Unity Consciousness – Complete enlightenment, the highest of the higher states of consciousness beyond waking, dreaming, and sleeping. In Unity Consciousness, one experiences that Consciousness is all there is:

all objects retain their manifest boundaries and are simultaneously experienced and known to be aspects of the unbounded wholeness of Consciousness.

Unmanifest – The silent, unchanging realm within the singularity of Consciousness, beyond space, time, and causation, which cannot be experienced by the senses.

Upanishads – One of the forty aspects of the Vedic literature. The Upanishads celebrate the reality that Consciousness is all there is with expressions such as "I am That," "thou art That," "all this is That," "That is Consciousness."

Vacuum permeability – A fundamental physical constant used to quantify the strength of the magnetic field produced by an electric current.

Veda – Derived from the Sanskrit root *vid*, "to know." Veda is usually translated as "knowledge." Maharishi Mahesh Yogi taught that the sounds of the Veda are direct expressions of the self-interacting dynamics of Consciousness, meaning that the structure and dynamics of the sounds of the syllables, words, phrases, stanzas, and chapters of the Veda are the structure and dynamics of the manifest within the wholeness of Consciousness.

Vedanta – The sixth of the six systems of Indian philosophy (the six Darshanas), literally the "end" (*anta*) of "knowledge" (Veda). The oldest of the three branches of Vedanta is Advaita Vedanta, the theory of the nondual nature of reality describing Consciousness as all there is.

Vedic Science – In Vedic Science, Maharishi organized the forty aspects of Veda and the Vedic literature as a science, with a comprehensive theoretical foundation, testable hypotheses, and empirical findings, and he brought to light the various functions and implications of each aspect.

Virtual – In the Consciousness paradigm, an entity is virtual when any one or two of the three roles of Consciousness represented in that bit of Consciousness is missing. A virtual triple is only a concept; it can be

entertained in the imagination of Consciousness, where it exists only as a concept. A virtual entity is different from a real entity; in the latter, an observer and an observed object come together in a process of observing.

Wave function – In quantum mechanics, a mathematical description of the quantum state of a particle — an isolated quantum system — and the probabilities for the possible results of measuring or observing it in terms of its momentum, position, time, and spin.

Wholeness – The totality of pure Consciousness.

Worldview – The sum of beliefs, culture, knowledge, and so on held by an individual or a society; the overall perspective from which the world and human life is viewed. The assumptions and beliefs of one's worldview will condition one's feeling, thinking, values, and behavior.

Wu wei – An ancient Chinese concept associated with both Confucianism and Taoism, usually translated as "non-doing, non-action, effortless action." It describes both how the self-referral dynamics of Consciousness operate and how the enlightened person who lives in harmony with those dynamics — in harmony with the total potential of natural law — behaves.

Yoga – The Sanskrit term *yoga* means "unity." Maharishi Patanjali, the great sage who wrote the *Yoga Sutra*, said, "Yoga is the complete settling of the activity of the mind. Then the seer is established in the Self."[1] As a discipline, it is one of the six Darshanas, a category of knowledge in the Vedic literature.

Yoga Asana – Physical postures performed in specific sequences, promoting integration among mind, body, and the environment; a practice in Hatha yoga. Asanas help develop the state of yoga (union). Yoga asana is one of the eight aspects or limbs of yoga described by Maharishi Patanjali in his *Yoga Sutra*.

Yoga Sutra – *Sutra* literally means "thread." In the Vedic literature it is an aphorism or rule. The *Yoga Sutra* is a book of aphorisms, often referred

to as the textbook of yoga. The *Yoga Sutra* was written by Maharishi Patanjali and is one of the forty aspects of Veda and the Vedic literature.

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NOTES

CHAPTER 1
Why Consciousness Matters

No notes.

CHAPTER 2
Superficially Complex, Fundamentally Simple

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INDEX

A

ability, freedom and, 350–353
absolute reality, 131–135
action and reaction, 205–206
addiction, 407–408
Advaita Vedanta, xxv, 427
Aham Brahmasmi,278–279
ahamkara,124
Aitareya Upanishad,278
Alfred, Lord Tennyson, 145
alignment problem, 410
Ali (imam), 376
AlphaGo (DeepMind/Google), 54
altered state, 41–42
American Journal of Physics,22
American Journal of Physiology,299
Anaximander, 16, 60
Anaximenes, 15–16, 60
anesthesia, 40
animals, Consciousness of, 50–53
appearance vs. reality, 79–83
Are We Smart Enough to Know How Smart Animals Are? (De Waal), 50
Aristotle, 50
artificial intelligence (AI and AGI), 53–54, 408–414
Atman,124, 190
atomic quanta, 8
attention, 209–210, 372–373
augmented reality (AR), 410–411
Augustine of Hippo, 357–359, 364–365, 379

awareness vs. consciousness, 36
Ayam Atma Brahma,191

B

balance and evolution, 207–208
Balcombe, Jonathan, 51
Beethoven, Ludwig von, 261, 422
Bible, 38, 48, 362, 376
Blake, William, 171, 173, 234, 383
Bohr, Niels, 65, 98, 292
Born, Max, 98
boy and the bishop story, 357–359
Brahman,190, 278–279, 369
Brahms, Johannes, 261, 422
brain
  defining consciousness as neurophysiology product, 62 (*see also* defining consciousness)
  emergent phenomena, 92, 118
  oxygen utilization by, 45
  state of scientific understanding about Consciousness, 34–40
  as transducer of consciousness, 49
  vision and, 57
Brentano, Franz, 48
Brihadaranyaka Upanishad,278
Bruno, Giordano, 72
buddhi,124
Buddhism, 46, 249

C

canvas of manifestation, 140–157
  defined, 140–141
  experiencing objects, 141–143, 148–149
  manifestation, defined, 147–148

patterns of Consciousness, 154–157
play of Consciousness, 153
primordial intellect and, 145–147
self-referral awareness, 143–145
subjecthood as unmanifest, 148–153
Cartesian dualism, 31
cascades of perception, 126–129
challenges, addressing, 397–414
artificial intelligence (AI and AGI), 408–414
climate crisis, 400–401
dependency and addiction, 407–408
discrimination, 403–404
environmental crisis, 405
genetic engineering, 405–406
nuclear weapon threat, 401–403
overview, 397–400
pandemics, 406
Chalmers, David, 30–31, 56
Chandogya Upanishad,113–116, 278, 279
change from experience, 216
chess, 54
classical reality, 84–85, 96–98
climate crisis, 400–401
Clinton, Bill, 316
coherence in collective consciousness, 310–312
coin metaphor, 203–205
collapse of wave function, 88
coma, 41
computer analogy, 170–173
concept of nothing, 164, 180–183, 191, 239
Confucianism, 379
Consciousness, 1–104
author's early experience with, xxvi–xxxii
complexity and simplicity of, 15–24
Consciousness-based reality, 413
defining, 3, 36, 62–83 (*see also* defining Consciousness)
for flourishing, 415–418 (*see also* human flourishing)

importance of, 3–14
meaning and, xxiii–xxv
modern science and physicalist perspective of, 84–104 (*see also* physicalist perspective)
paradigm shift of discovery, xix–xx
as personal/scientific awakening, xxii–xxiii
physics research on, xxix–xxxi
pure Consciousness, overview, xxviii–xxxi
science of, xxv, 25–61 (*see also* science of Consciousness)
for well-being, xxi–xxii
consciousness, higher states of, 245–293
Cosmic Consciousness (fifth state), 263–269
God Consciousness (sixth state), 263–269, 270–277
Transcendental Consciousness (fourth state), 247–262 (*see also* Transcendental Consciousness)
Unity Consciousness (seventh state), 278–293 (*see also* Unity Consciousness)
consciousness, techniques/technologies of, 295–334. *See also* Transcendental Meditation® (TM®)
coherence for pathway to peace, 310–334
for experiencing pure Consciousness, 297–309
technologies, defined, 297–298
Consciousness Explained (Dennett), 58
"Consciousness is all there is," 6, 7, 63–66. See also defining Consciousness
Consciousness paradigm, 105–244. *See also* manifestation
Consciousness as field of all possibilities, 174–182
Consciousness pyramids, 183–201
four pillars of, 10–12
fundamentals of, 236–244
manifestation, canvas of, 140–157
manifestation, speed and gaps in, 158–167
no-thing as start of everything, 107–118
observerhood quality of, 119–139 (*see also* observerhood quality)
perspectives in the manifest, 202–235
philosophy of mind for, 425–429
time and eternal now, 168–173

consciousness raising concept, 33
consequentialism, 369
Copenhagen interpretation, 98, 101–103, 165
Copernicus, 71–72, 78
Cosmic Consciousness (fifth state), 263–269, 270–271, 287
cosmology concepts, 58, 72, 89, 165, 168. *See also* science of Consciousness
Council of Nicaea, 357
creation, 272–273. *See also* manifestation
Crick, Francis, 34

D

Dalton, John, 85
Damasio, Antonio, 32
dark energy, 9
Darshanas, 306
decoherent histories interpretation, 102
Deep Blue, 54
DeepMind (Google), 54
defining Consciousness, 62–83
  appearance vs. reality and, 79–83
  as awareness and wakefulness, 3
  awareness vs. consciousness, 36
  as neurophysiology product, 62
  observation and assumption about, 76–78
  as *only* reality, 63–66
  physicalist worldview of, 73–75
  simple hard solution of, 67–76
  as ultimate singularity, 66–67
Democritus, 16, 84–85
Dennett, Daniel, 58
deontological (rule-based ethics), 368
dependency (addiction), 407–408
Descartes, René, 31–32, 69–71, 114, 427
determinism, 338–340, 355

De trinitate (*On the Holy Trinity*, Augustine of Hippo), 357–359
Devine, Betsy, 22
De Waal, Frans, 50
Diotima of Mantinea, 363–364, 365
discrimination, 403–404
dreaming, 36–38, 42, 45, 252–255
dualism, 425

E

"easy" problem of consciousness, 56–59
Eddington, Arthur, 65
Edwards, Jonathan, 274
ego, 123–124
Einstein, Albert
  eternal now and, 169
  on God, 273
  legacy of, 292
  realism and, 98–99
  relativity theory, 73, 77–78, 102, 430
  science of Consciousness and, 33, 60
Eleatic school, 228
electromagnetism, theory of, 16–17
electron fields, 22
enlightenment, 27
entanglement, 89, 95, 96
entropy vs. self-preservation, 221–223
environmental crisis, 405
eternal now, 168–173
ethics, 368–378
  attention and, 372–373
  consequentialism, 369
  humans as image of God and, 376–378
  intention and, 373–376
  rule-based (deontological), 368
  virtue in Consciousness paradigm for, 369–372

evil, problem of, 379–396
destruction of evil, 387–388
as imbalance, 386–387
overview, 379–386
rescue from evil, 392–396
“why me?,” 388–392
evolution
balance and, 207–208
human mind and, 91–92
of personal consciousness, 230–232

F

Fantastic Realities: 49 Mind Journeys and a Trip to Stockholm (Wilczek and Devine), 22
Faraday, Michael, 16, 86
FBI Uniform Crime Statistics, 314, 317
fields vs. particles, 19–24
fight-or-flight response, 135
Fodor, Jerry, 35
fourth state of Consciousness. *See* Transcendental Consciousness
freedom and free will, 337–359
boy and the bishop story of, 357–359
choice and, 220–221
Consciousness for greater freedom, 343–345
determinism and, 338–340, 355
freedom, health, and well-being, 342–343
freedom and, overview, 337–338
freedom and creativity of nature, 340–342
freedom and limit to ability, 350–353
freedom and limit to imagination, 345–350
freedom and religion, 355–357
karma and, 223–224
law, natural and man-made, 354–355
law, responsibility, and, 353–354
as necessary for manifestation, 217–220

orderliness paradox, 224–226
Freud, Sigmund, 44, 249

G

Galileo, 60, 71, 72, 78
gaps and manifestation, 163–167
Gell-Mann, Murray, 102
genetic engineering, 405–406
Glashow, Sheldon Lee, xxix–xxx, 17
Gleiser, Marcelo, 60
God, humans as image of, 376–378
God Consciousness (sixth state), 270–277, 288
Goethe, Johann von, 261
Go (game), 53–54
Goodall, Jane, 273
Google, 54
Gopi Krishna, 285
grand unification, 17
gravity
dark energy and, 9
Earth's gravitational field, 20
as force of nature, 17
unified field and, 5–6
Griffiths, Robert, 102
"Group for a Government Global Demonstration," 317

H

Hagelin, John, xxx, 312
Hammarskjöld, Dag, 265
"hard" problem of consciousness, 56–59
Hartle, James, 102
health, freedom and, 342–343
Heisenberg, Werner, 98, 292

Heisenberg uncertainty principle, 229, 340
Heraclitus, 16, 60, 394
Hesiod, 15
hierarchy of needs, xxi
Hippocratic Oath, 411
Hobson, Art, 22
Homer, 15
Huis Clos (*No Exit*, Sartre), 143
Humane Society Institute for Science and Policy, 51
human flourishing, 335–418
  addressing challenges for, 397–414 (*see also* challenges, addressing)
  Consciousness for, 415–418
  ethics and, 368–378 (*see also* ethics)
  free will, 335–359
  problem of evil and, 379–396 (*see also* evil, problem of)
  for a well-lived life, 360–367
Hume, David, 254–255
Husserl, Edmund, 48
hypnosis, 42–43

I

idealism, 428
imagination, freedom and, 345–350
impaired/induced states of Consciousness, 40–43
implicit learning, 44
implicit memory, 44–45
Indrajala (Indra's net), 156
infinite speed, 158–167
intellect
  ego and mind, 123–124
  primordial, 145–147
intention, 229–230, 373–376
Islam, 376
"I think, therefore I am" (Descartes), 69–71, 427

J

Jeans, James, 18
Jung, Carl, 249

K

Kant, Immanuel, 80, 368
Kasparov, Garry, 54
Ke Jie, 54
Kepler, 71, 78
Kuhn, Thomas, 292

L

Laozi, 364, 365
Laplace, Pierre-Simon, 86, 338–339
Large Hadron Collider, 17
law, freedom and, 353–355
Lebanon civil war and conflict reduction, xxvi–xxviii, 318–322
Lehmann, Rosamond, 274–275
Leucippus, 16, 84
level of consciousness, 55–56
Libet, Benjamin, 339
lila,153
Lincoln, Abraham, 375
locked-in syndrome, 40
love, 234, 272
lucid dreaming, 42

M

Maharishi Effect, overview, 311–312, 324–327, 399–401, 403, 408. *See also* human flourishing; Transcendental Meditation® (TM®), advanced

techniques
Maharishi International University, 321–323
Maharishi Mahesh Yogi
advanced techniques of, 302, 309, 310, 324 (*see also* Transcendental Meditation® (TM®), advanced techniques)
Consciousness paradigm concepts, 143
on flourishing, 377, 386
on higher states of Consciousness, 248, 251, 253, 255, 264, 269, 271, 273–274, 276, 278, 284
on pure Consciousness, xxviii
on Vedas, overview, 421–424
Vedic knowledge of, for defining Consciousness, 4, 28, 62, 65–66
Maharishi Patanjali, 256, 308, 384
Maha Upanishad,370
Mahavakyas, 278
manifestation. *See also* perspectives in the manifest; pyramids of Consciousness
canvas of, 140–157
defined, 147–148
field of all possibilities, 174–182
speed and gaps in, 158–167
time, 168–173
unmanifest vs., summarized, 237–239
many-worlds interpretation of quantum theory, 103–104
Marcus Aurelius, 261–262
Mary–John–Jane scenario, 77–78, 430–433
Maslow, Abraham, xxi, 365–366
materialism, theory of, 4–14
mathematics, 59–61
matter and energy, 4–7, 64
Maxwell, James Clerk, 16–17, 86
maya,132, 166
Mayo Clinic, 43
Meditations (Marcus Aurelius), 261–262
memory within the Absolute, 194
Merrell-Wolff, Franklin, 284
Merton, Thomas, 262

Milton, John, 261
mindfulness, 302–305. *See also* Transcendental Meditation® (TM®), advanced techniques
minimally conscious state, 41
modes of perception, 126–129
monism, 6
monistic physicalism, 427
movement and Consciousness, 228–229
multiplicity (modes and cascades of perception), 126–129, 179

N

nature, freedom and, 340–342
Newton, Isaac, 85, 86, 95, 102, 338
Newtonian physics, 20–21, 293
nirvana, 46
no-thing as start of everything, 107–118
  Chandogya Upanishad analogy, 113–116
  no-thing, defined, 108–109
  nothingness, experiencing, 109–111
  nothingness and set theory analogy, 112, 116–117
  nothingness quality as Consciousness, 113
  observer/object/observing process, 108–109, 117
  singularity of Consciousness, 107–108
nothing concept and nothingness, 113, 164, 180–183, 191, 197–198, 239
nuclear weapon threat, 401–403

O

objectification, 141–143, 148–149
object-referral, 177–182
objects, dependency of, 68
observerhood quality
  absolute and relative reality of, 131–135
  ego, intellect, and mind, 123–124

full and partial essences of, 136–139
multiplicity (modes and cascades of perception), 126–129, 179
observerhood, observinghood, observedhood, 108–109, 117, 119–120, 279
as self-interacting dynamics of Consciousness, 120–123
space and time of, 125–126
virtual and real entities of, 129–131
ocean of Consciousness metaphor, 12–14
Omnès, Roland, 102
The Omnivore's Dilemma (Pollan), 52
oneness, 179

P

pandemics, 406
Parmenides, 16, 228
particles
entanglement of particle pairs, 8–9
fields vs., 19–24
patterns of Consciousness, 154–157
Peace Pilgrim, 285
Pearson, Craig, 262
perspective. *See* observerhood
perspective and abstraction, 216–217
perspectives in the manifest, 202–235
action and reaction, 205–206
balance and evolution, 207–208
change from experience, 216
coin metaphor, 203–205
entropy vs. self-preservation, 221–223
evolution of personal consciousness, 230–232
for experiencing pure Consciousness, 234–235
freedom and choice, 220–221
freedom and karma, 223–224
freedom and orderliness paradox, 224–226
freedom as necessary for manifestation, 217–220

influence between everything, 202
intention, 229–230
love, 234
movement and Consciousness, 228–229
perspective and abstraction, 216–217
physicalist approach and, 227
qualities and quantities of awareness, 208–212
synthesis and analysis journeys, feelings/emotions on, 232–233
varieties of consciousness, 212–215
Pew Research Center, 271
physicalist perspective, 84–104
classical reality and, 84–85, 96–98
classical vs. quantum mechanical reality, 96–98
Copenhagen interpretation, 98, 101–103
decoherent histories interpretation, 102
entanglement and, 89, 95, 96
evolution and human mind, 91–92
fields of energy and, 86
many-worlds interpretation of quantum theory, 103–104
to perspectives in the manifest, 227
physicalism, defined, 426–427
physicalists, defined, 3
physicalist worldview of defining Consciousness, 73–75
quantum effects and, 96
quantum fields and, 86–88
randomness and, 93–95
unification of fields, 88–89
universe's beginning and, 89–91
Von Neumann–Wigner interpretation, 98, 103
wave function of particles, 87–89, 95, 98–103
physics, xxii, xxix–xxxi, 20–21, 22, 83, 293
physiology, consciousness and, 39–40
Pinker, Steven, 30, 80
Planck, Max, 292
Planck scale, 69
plants, 52
Plato, 363–364, 379

play of consciousness, 45
Pollan, Michael, 52
primacy of Consciousness, 29–33
primordial intellect, 145–147
primordial sound, 422–424
process-referral, 177, 178
psycho-neuro-endocrine-immune system reaction, 39–40
psychophysiological principle, 39
pure Consciousness. *See also* Consciousness
defined, xxviii–xxxi, 66
  as fourth state of consciousness, 45–49
  overview, xxviii–xxxi
pyramids of Consciousness, 183–201
  analysis and synthesis in manifestation, 200–201
  forces of separation and assembling, 198–200
  knowledge of reality in different states, 196
  manifestation within Consciousness, 194–196
  nothingness, gaps, and big bang, 197–198
  subjecthood and perspective, 184–185
  synthesis path, 185, 189–190, 193, 197–201
  for unmanifest and manifest realms, 186–194
Pythagoras, 59, 60

Q

qualia, 35
qualities and quantities of awareness, 208–212
quality of life (US) indices, broad-based improvements in, 323–325
quantum theory. *See also* physicalist perspective
  entanglement and, 89, 95, 96
  many-worlds interpretation of, 103–104
  matter and energy, 4–7, 64
  quantum effects, 96
  quantum electrodynamics (QED), 17
  quantum field theory, 21–24
  quantum mechanical reality, 96–98

quantum physics, xxii

R

randomness, 93–95
rapid eye movement (REM), 36–37
reality
absolute and relative, 131–135
appearance vs., 79–83
knowledge of, 196
relativity of simultaneity, 77–78, 430–433
relativity theory, 73, 77–78, 430
rishis, 421–422
rule-based ethics (deontological), 368

S

Salam, Abdus, xxix–xxx, 17
samadhi,46
Saraswati, Shankaracharya Brahmananda, xxviii
Sartre, Jean-Paul, 48, 143
Schrödinger, Erwin, 18, 79, 80, 158
Science,299
science of consciousness, 25–61. *See also* physics; quantum theory
as ancient wisdom and modern science, 25–61
animals and, 50–53
artificial intelligence (AI) and, 53–54
enlightenment and, 27
hard vs. easy problem of consciousness, 56–59
impaired or induced states of Consciousness, 40–43
level of consciousness and, 55–56
mathematics and, 59–61
primacy of Consciousness, 29–33
pure Consciousness as fourth state of consciousness, 45–49
state of scientific understanding about, 34–40

subconscious vs. unconscious activity, 31, 43–45
understanding, 25–29
Scientific American, 50, 299
scientism, 76
Sedol, Lee, 54
Self, 123–124, 250. See also consciousness, higher states of
self-actualization, xxi
self-referral awareness, 143–145, 177, 179–182
separation and assembling, forces of, 198–200
simple hard solution of defining consciousness, 67–76
simultaneity, relativity of, 77–78, 430–433
sleep, states/stages of, 36–42, 45, 252–255
sleepwalking, 42
Socrates, 363–364
space, 125–126
speed in manifestation, 158–167
spin, 8
The Structure of Scientific Revolutions (Kuhn), 292
subconscious vs. unconscious activity, 31, 43–45
subjecthood, 148–153, 184–185. See also observerhood
subject-referral, 177–178
Sufi parable, 417–418
superunification, 5, 17
The Supreme Awakening (Pearson), 262
Symposium (Plato), 363–364
synesthesia, 39
synthesis path, 185, 189–190, 193, 197–201, 232–233

T

Taoism, 379
Tao Te Ching (Laozi), 364, 365
technologies, defined, 297–298. *See also* Transcendental Meditation® (TM®)
TED talk, by Chalmers, 30–31
Teilhard de Chardin, Pierre, 389, 396

Tennyson, Alfred, 261
Thales, 15, 60
"There Are No Particles, There Are Only Fields" (Hobson), 22
Thomson, J.J., 85
time, 125–126, 168–173
TM-Sidhi®, overview, 311–312. *See also* Transcendental Meditation® (TM®), advanced techniques
transcendence, xxi, 47, 256–257
Transcendental Consciousness (fourth state of consciousness), 247–262
  confirming Consciousness, 247
  defined, 259–261, 268, 286
  experiencing pure Consciousness, 258–259
  pure Consciousness as, 45–49
  sleeping, dreaming, waking, 252–255
  states of Consciousness, overview, 247–252
  testimonies of, 261–262
  transcendence, 256–257
Transcendental Meditation® (TM®). *See also* consciousness, higher states of
  benefits of, xxix
  for flourishing, 362, 373, 375, 399
  for higher states of consciousness, 255, 256–257, 258–260, 266–268, 275–276, 282, 283–284, 286–289
  nothingness experience, 111
  practice of, 28
  for stress, 135
  transcendence with, 47, 256–257
  for Unity Consciousness, 235
Transcendental Meditation® (TM®), advanced techniques
  to address problems at their source, 327–328
  awakening to unbounded reality with Consciousness, 330–333
  benefits of, 300
  for coherence in collective consciousness, 310–312
  effectiveness of, 328–330
  Lebanon civil war and conflict reduction, 318–322
  Maharishi Effect, overview, 311–312, 324–327
  mindfulness and, 302–305

quality of life (US) indices, 323–325
research on, 299
technique of, 300–302
as technology of consciousness, 297–298
TM-Sidhi®, overview, 311–312
Washington, DC, and violent crime reduction, 312–318
yoga and, 306–309
transcenders, 365–366
turiya,46, 47

U

unconscious vs. subconscious activity, 31, 43–45
unified field
one unbounded ocean of Consciousness metaphor, 12–14
theory of, xxx, 5–6, 17, 88–89
United Nations, 327, 328
Unity Consciousness (seventh state of consciousness), 235, 278–293
defined, 278, 289
for greater knowledge/higher truth, 292–293
for living wholeness, 290–292
overview, 278–280
perspectives in the manifest, 235
true knowledge of, 281–290
universe's beginning, 89–91
"The Unreasonable Effectiveness of Mathematics in the Physical Sciences" (Wigner), 60
Upanishads, 113, 115, 191

V

varieties of consciousness, 212–215
Vedas. *See also individual concepts*
Advaita Vedanta, xxv, 427

advanced techniques, 297, 306, 331 (*see also* Transcendental Meditation® (TM®), advanced techniques)
Consciousness, understanding, 4, 28–29, 47, 62, 65–66
Consciousness paradigm and, 113, 124, 132, 190
for flourishing, 377
for higher states of consciousness, 248–249, 251, 278
overview, 421–424
vegetative state, 41
violent crime reduction, in Washington, DC, 312–318
virtual reality (VR), 410–412
vision, 57
Von Neumann, John, 98
Von Neumann–Wigner interpretation, 98, 103

W

waking and wakefulness, 3, 36, 45, 252–255, 267, 268
Wald, George, 18
Wallace, Robert Keith, xxix
Washington, DC, and violent crime reduction, 312–318. *See also* Transcendental Meditation® (TM®), advanced techniques
wave function of particles, 87–89, 95, 98–103
Weinberg, Steven, xxix–xxx ,17, 22–23
well-lived life, enjoying, 360–367
What A Fish Knows: The Inner Lives of Our Underwater Cousins (Balcombe), 51
Wheeler, John, 29
“why me?,” 388–392
Wigner, Eugene, 60, 98, 103
Wilczek, Frank, 22
Wolff, Charlotte, 265–266
Wordsworth, William, 261, 271
wu wei,364

Y

yoga, 306–309
Yoga Sutra of Patanjali, 256, 308, 384
Yoga Vasishtha,37, 38

Z

Zeno, 228–229

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